HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 20, NO. 5, ABSTRACTS 601-750. MAY 1980

LONDON: HER MAJESTY'S STATIONERY OFFICE

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First published 1980

ISBN 0 11 722667 X
ISSN 0018 5507

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

See Abstract No. 738

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 619, 690

601. GIGLI, S. C., MONICO, G. and RAVIZZA, E. L'Ospedale cantonale di Baden. **[The Cantonal Hospital of Baden.]** *Tecnica Ospedaliera*, Milano, 1980, Feb., vol. 10, no. 2, pp. 20-28.

In the course of a study tour to Switzerland in 1979, the authors, who are all architects, visited the 500-bed Cantonal Hospital in Baden, which was completed in 1978. The hospital is of a conventional design, having a wide square base, with three floors above ground and three below ground, where all the technical services and offices are located; above this is a narrower 12-storey tower block which houses the patients' rooms. One of the most interesting features is the internal transport system which comprises: (i) a computerized automatic trolley system combining horizontal minitrailers with vertical goods lifts; (ii) a guided automatic transport system for baskets containing small quantities of materials such as plasma or X-ray plates, operated by means of conveyor belts and paternoster lifts; and (iii) a pneumatic transport system for letters and documents. The article includes five photographs of the interior, a general location plan of the hospital complex, an exploded diagram of the main block, four floor plans, and diagrams of the general services building, staff residences, and the school of nursing.

602. FREITAS CARVALHO, L. de. Panorâmica da crise administrative-hospitalar atual. **[Panorama of the current crisis in hospital administration.]** *Revista Paulista de Hospitais*, São Paulo, 1979, Sept., vol. 27, no. 9, pp. 277-282.

The author describes the situation of the charitable hospitals in Brazil as being nothing short of catastrophic. Some have had to close because of maladministration, muddled accounting, lack of financial controls and resources, or lack of equipment and drugs. Some are said to have sophisticated equipment and even television in the patients' rooms but are unable to pay their staff. In state hospitals the staff, including the doctors, are often involved in strike action. The number of state hospitals has increased in line with the increase in population since 1955 but the number of charitable hospitals has not; the number of profit-making hospitals has, on the other hand, increased dramatically and now represents 53 per cent of all the hospitals in the country. A working party established by the government to study the situation of hospital provision and care in the State of São Paulo has recommended that the government should: (i) centralize the financial resources available for medical and hospital aid and distribute it in accordance with well-defined criteria; and (ii) establish a hierarchical

network of hospitals. In the meantime, hospital authorities should attempt to improve their administration and encourage their staff to attend training courses. This article contains two tables of statistics relating to hospital provision in Brazil.

603. Kanta-Hämeen Keskussairaala. **[Central Hospital of Kanta-Häme.]** *Sairaala*, Helsinki, 1980, vol. 43, no. 3, pp. 105-120.

This hospital consists of a new building with 345 beds and supporting services, and an old hospital with 120 beds which is to be renovated. The new hospital has a basement and seven floors. Details of the accommodation on each of these is given, together with plans and photographs. The paper and the captions to the diagrams and photographs are given in Finnish, Swedish, English, German and Russian.

PLANNING, DESIGN AND CONSTRUCTION

HOSPITAL DESIGN

See also Abstract Nos. 682, 685

604. Hospitales diseñados por computadora. **[Hospitals designed by computer.]** *Hospital*, Miami, Fla., 1980, Dec./Jan., vol. 35, no. 6, pp. 4, 6, 10.

An outline is given of the ARK-2 computer system employed by the Stewart Design Group of Boston, Mass., when they designed a new hospital in Buenos Aires, another in São Paulo, and a third in Caracas. Three-dimensional views of the interior or exterior of a building from any angle can be projected on the computer screen and this can reveal problems which would not otherwise appear until the building had been completed. Recommended solutions can be demonstrated for the client. The costs of each plan can be calculated and a permanent record of the whole design process can be preserved by the computer. In São Paulo the computer was used to help decide whether an existing building could be converted into a hospital or whether a completely new construction was required. The computer is a tool for the architect, not a substitute. It enables him to solve complex problems quickly and at reduced cost.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

605. SESSLER, G. Myten om storsjukhuset Huddinge. **[The famous Huddinge Hospital.]** *Vårdfacket*, Stockholm, 1980, Feb. 21, vol. 4, no. 4, pp. 8-11.

When Huddinge Hospital was opened in the 1950's, it constituted the biggest single place of employment in Northern Europe. Originally planned to have 1,600 beds, it currently has 870, placing it well down among the 10 biggest hospitals in Sweden. By the end of the 1980s it should achieve a final bed number of 1,400, serving the area of 260,000 people, the majority of whom are immigrants. A staff of 5,790 people, of 56 nationalities make up an establishment of 2,782½ full time posts. Staff turnover is low and requests for postings are usually within the hospital. The paired wards are of 18 to 22 beds each, and staff maintain good contact in canteens, common rooms etc.

Supply services are centralized, and a very high degree of automation has been applied to all technical systems and services. Despite a large security staff, theft is a very serious problem, including the paintings with which the corridors and day rooms were originally so liberally decorated. The article is illustrated with two external and 10 interior photographs.

606. CAMICIOTTOLI, W. I. and PEDRAZZI, M. G. Ricerca di elementi progettuali. **[Research on design factors.]** *Tecnica Ospedaliera*, Milano, 1980, Feb., vol. 10, no. 2, pp. 29-39.

To assist hospital designers, the authors have defined minimum, optimum, and maximum dimensions for specific areas in the hospital such as the radio-diagnostic department, the operating block, and medical, surgical, and paediatric wards (for area, provincial, and regional hospitals). In a series of 11 tables they list the various rooms and areas which may be required and note whether each of these is necessary, desirable, or useless. For example, the area of two normal theatres plus one plastering room varies from a minimum of 198 cubic metres to a maximum of 295 cubic metres. Again, a room for the preparation of special fluids is not necessary in any care unit; but a room for the preparation of special food is essential in a paediatric unit and useful though not essential in a medical, surgical, or obstetric unit.

DESIGN OF SPECIAL DEPARTMENTS

607. CIOFFI, G. and VONA, C. Il nuovo centro di patologia neonatale dell'ospedale civile de Frosinone. **[The new neonatal disease centre in the civil hospital at Frosinone.]** *Tecnica Ospedaliera*, Milano, 1980, Feb., vol. 10, no. 2, pp. 47-53.

The authors, one of whom is the architect, describe the new 30-bed neonatal wing which is attached to, but at the same time isolated from, the obstetrics and gynaecology unit. The department is divided into: (i) a sterile sector comprising all three levels of graduated care; (ii) an observation sector with a filter area; and (iii) a sector for the cleaning and disinfection of equipment and material. A specially equipped girder has been designed for the nurseries; it runs from wall to wall and consists of modules which carry the sockets for fluids and power, and bearings intended to hold up the various items of equipment (monitor, infusion pump, etc.) near the incubators. The authors describe the lighting system, the oxygen and nitrogen distribution system, and the emergency power arrangements in some detail.

ENGINEERING SERVICES

ELECTRICAL INSTALLATIONS AND EQUIPMENT

608. WILLIAMS, David. **Standby power for hospital installations.** *Middle East Health*, Morden, 1980, April, vol. 4, no. 4, pp. 33-35.

Standby power generating installations are often the last thing to be considered in planning a new hospital, yet nearly all the sophisticated services and systems in a

modern hospital are totally dependent on a supply of electricity. The heat, noise, vibration and exhaust gases associated with the generators are important in siting and designing the installation. Equipment and maintenance standards are discussed; most of the information is of general relevance though some is of particular importance for hospitals in the Middle East.

COMMUNICATION SYSTEMS

609. HODGSON, D. V. and TOWNEND, T. J. **Check your telephone bill.** *Health and Social Service Journal*, Basingstoke, 1980, March 14, vol. 90, pp. 345-347.

In 1977 a complete check was made on all the telephone apparatus rented from the Post Office by the Westminster Hospital. The hospital's switchboard, which serves the entire Westminster sector of the south district of the Kensington and Chelsea and Westminster Area Health Authority, has a capacity of 58 exchange lines and 920 extensions. The check took four months and a significant discrepancy between the findings and the amount being charged was revealed. Most of the discrepancies occurred in the radical distances of the external extensions and some extensions did not exist at all. A rebate of nearly £15,000 was eventually obtained from the Post Office. A number of measures have been introduced to ensure that these mistakes do not occur again. These include: (i) the up-dating of information on all rented equipment using a record card for each extension; and (ii) the use of an official order form sent to the Post Office when alterations or new installations are required. After the investigation had been carried out for the main switchboard telephone number, it was extended to all direct exchange lines and coin boxes in the sector and further smaller rebates were received.

TRANSPORT IN GENERAL

See Abstract No. 601

ENERGY CONSERVATION

610. FLAIG, K. **Energy recycling in hospitals.** *Sulzer Technical Review*, London, 1979, vol. 61, no. 4, pp. 159-164.

The installation of heat recovery equipment in hospitals is economically beneficial, but requirements of hygiene, which vary according to country and the type of room involved, must be met. The most suitable system can be established only by weighing the investment costs against the expected energy savings. Costs will depend on the design of the building and the layout of the room air conditioning installations. Recuperators with separating walls may be used in rooms with high or normal sterility requirements. Regenerators with a liquid or gaseous heat carrier use several such recuperators and may be used in all types of rooms as the transfer of germs is impossible. Regenerators with a solid heat carrier can transfer germs and also humidity. Heat pumps are also hygienically safe and the refrigerating machine used in air conditioning may also function as a heat pump provided the evaporator and condenser are correctly positioned. The operation of two installations using heat pumps are described with

design figures: (i) a heat pump installation with an intermediate heat carrier; and (ii) a heat pump operating air-to-air with the outside and exhaust air ducted centrally. A comparison of operating costs revealed that the heat pump is more economical when used for both refrigeration and heat recovery.

611. CHOKSI, N. **Energy management: modifications and monitoring.** *Heating/Piping/Air Conditioning*, Cleveland, Ohio, 1980, Jan., vol. 52, no. 1, pp. 91-95.

This article describes the modification and monitoring stages of the energy management programme in operation at Leila Hospital, Battle Creek, Mich. The modifications made included: (i) a reduction in total lighting to 6,160 watts; (ii) installation of balancing dampers to obtain comfortable air conditioning in both patient and operating areas; (iii) reduction in operating hours, and thereby in cost, of the water chiller; and (iv) various temperature control modifications throughout the air conditioning complex, resulting in substantial reductions in consumption. A correction to the power factor using capacitator banks saved $6,000 a year and improved insulation saved $4,500. The operation of the air conditioning system serving the kitchen and X-ray areas was reduced to occupied hours only, resulting in further energy savings at no cost. The success of the project owed much to the co-operation of the maintenance staff. The total cost of the programme, including the initial audit, was $73,000. This produced a saving of $52,217 in the first year, which will increase as the cost of energy increases.

612. WALSER, P. Energiekonsum—Energiesparen. **[Energy consumption and energy savings.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, Feb., vol. 21, no. 2, pp. 96-98, 101, 102.

Energy consumption can be reduced if the boilers providing hot water are as close as possible to the taps; this may require the installation of additional boilers. It may also be cheaper in Switzerland to heat the water electrically at night. Other suggestions for energy savings include the installation of double glazing, thermostats on each radiator, airing a room fully for a short period instead of having a window half-open all day, and switching on the ventilation plant only when absolutely necessary. Future sources of energy savings which are mentioned are condensation heat from waste gases, biogas, solar heating, and heat pump systems.

613. BAILEY, D. M. **Energy contingency planning for health facilities: conference report.** *Public Health Reports*, Washington, D.C., 1980, Jan./Feb., vol. 95, no. 1, pp. 58-61.

A Conference on Contingency Planning for Health Facilities was organized by the Division of Energy Policy and Programs of the Bureau of Health Facilities, Health Resources Administration. Over 100 participants from federal, state and local government were asked to use the conference as a forum to discuss the impact of energy changes on the health care system and to begin planning for those changes. The topics covered ranged from inadequate federal and state leadership for the hospitals faced with possible evacuation during the Three Mile Island nuclear power plant incident, to the breakdown of health services in towns where populations are tripling as industry searches for new energy sources. At the end of the conference, working

groups reported their discussions and specifically asked the federal government and industry to take a number of actions to help hospitals to cope with a possible shortfall in energy.

VENTILATION AND AIR CONDITIONING

See Abstract No. 670

EQUIPMENT, FITTINGS, FURNITURE

BEDS, COTS, ETC.

614. THOMSON, C. W. and others. **Fluidised-bead bed in the intensive-therapy unit.** *Lancet*, London, 1980, March 15, pp. 568-570.

A fluidized-bead bed in use at Newcastle General Hospital resembles a conventional bed, being of the same size and general configuration. The structure and principles of the fluidized bed are described. The patient floats like an iceberg, with one-third of the body above the surface and the rest immersed in a warm, dry fluid, with a stream of warm air blowing imperceptibly over the skin. Bacterial contamination does not occur in fluidized beds. So far 16 patients have been nursed satisfactorily in the bed; brief details are given of three. It has proved particularly suitable for the management of pressure areas and for patients at the extremes of weight range. Two patients found the bed intolerable, because they could not tolerate the sensation produced by fluidization on their skin. More recently it has been found that this difficulty can be overcome by reducing the airflow speed. Theoretically, the bed is a way of reducing catabolism, but this has so far not been properly investigated.

LIFTING DEVICES, HOISTS

615. BELL, F. and others. **Hospital ward patient-lifting tasks.** *Ergonomics*, London, 1979, vol. 22, no. 11, pp. 1257-1273.

From a questionnaire survey of the nursing staff in charge of 362 wards in Scotland and 363 wards in England, covering every major medical specialty, information was collected on five tasks which involve lifting patients. The method used for lifting patients, the number of staff required per lift, the importance of the task and the frequency and physical effort involved was measured for each type of task. This information was then used to rank the five tasks within and between different types of wards. A review of the five tasks, set out in 11 tables, reveals the following main facts: (i) manual lifting is most often used; (ii) each task is considered to be of comparable importance to patient care; (iii) two members of staff are generally required for lifting; and (iv) the physical effort involved is high. It appears that current lifting methods are generally unsatisfactory and often give rise to back injuries in nurses. Detailed investigations, in the following order of priority, should be given to: (i) lifting patients in and out of chairs; (ii) repositioning patients within chairs and beds; (iii) lifting

patients on and off toilets; (iv) lifting patients in and out of beds; and (v) lifting patients in and out of baths.

EQUIPMENT GENERALLY

616. TREMOLIERES, F. and others. Réanimation et matériel; aspects techniques et gestion. **[Resuscitation and equipment, technical and management aspects.]** *Hôpital à Paris*, Paris, 1980, Jan./Feb., no. 55, pp. 47-51.

A multi-disciplinary resuscitation centre is defined as a department of internal medicine which has the equipment required for the diagnosis, treatment, and continuous monitoring of patients suffering from the failure of one or several organs. The equipment in such a unit can be divided into disposable items and capital items. The former includes syringes, needles, and intubation material, and the authors make suggestions as to how these may be best stored and ordered. Large items which are essential are the artificial respirators, haemodialysis apparatus, peritoneal dialysis machines, heart stimulators, defribillators, peristaltic pumps, aspiration equipment, and a wide range of diagnostic and monitoring equipment. In a rapidly developing field, the main problem is obsolescence; the authors discuss methods of phased replacement, and the maintenance of existing equipment.

617. AGNHAGE, K. and others. **International Workshop on Evaluation of Medical Technology, Stockholm, Sweden, September 18-19 1979: development and diffusion of technological assets for public health; simultaneous scientific and medical proceedings.** Stockholm, Spri, [1979]. [ii], 185pp. (Spri Projekt 3089)

The conference papers presented here fall into two groups. One section is a series of 'State of the art' reports from Denmark, Finland, Norway, Holland, Switzerland and Sweden. The other section has papers on the evaluation of technology covering medical, technical and economic aspects. Two papers deal specifically with the situation in cardiology departments and laboratories respectively. In a summary it is suggested that information should be compiled on particular cases and more public awareness should be generated on the issues involved in technology assessment. International co-operation for exchange of experience and information is recommended.

MEDICAL EQUIPMENT

See also Abstract Nos. 617, 644

618. BALL, G. **Designing for safety in anaesthesia.** *Middle East Health*, Sutton, 1980, March, vol. 4, no. 3, pp. 16-18.

Anaesthetic gases in hospitals are supplied either from centralized piped systems or from high pressure cylinders mounted on anaesthetic machines. Strict codes of practice exist for the commissioning of piped systems and the risk of cross coupling supply hoses between the pipeline outlet has been minimized by the use of non-interchangeable,

screw-threaded couplings between the hose and the machine. In addition, inlet mounting blocks and corresponding gauges are labelled and colour-coded for the specific gases concerned. Owing to colour and mechanical coding systems, incidents involving medical gas cylinders are now rare. On anaesthetic machines a number of flowmeters are grouped together, and colour coding is continued to the control knob and flowmeter block. Contamination of gases is minimized by filters in the supply lines and static build-up is prevented by a patented process. The vaporizer has been much improved in recent years and the inadvertent filling of a vaporizer with the wrong anaesthetic agent can be prevented by a 'Keyed' filling system. The development of methods of removing gases from the air in the operating theatre has greatly reduced the risks associated with staff exposure to contamination. Considerations of safety will continue to influence the design of anaesthetic equipment.

619. RETTIG, R. A. **The federal government and medical technology: crossing policy and management thresholds.** *Policy Sciences*, Amsterdam, 1980, Feb., vol. 11, pp. 343-356.

This paper reviews the changes in United States federal government involvement in medical technology over the past decade, from prior reliance upon non-governmental decision-making about development, diffusion and use, to increasingly centralized decision-making. The case of end-stage renal disease is discussed as an example of the contrast between the past and the present. The case of Karen Ann Quinlan and the example of computerized tomography indicate the source of present scepticism about the benefits and costs of medical technology. Current federal involvement in medical technology decision-making, through health planning, medical device regulation, and increased formal analysis of safety, effectiveness, and cost-effectiveness, is described. Though increased federal involvement in medical technology stems from a desire to compensate for failures of the medical market place, the immediate effect is to place greater decision-making reliance upon formal analysis, bureaucracy, legal procedure and politics. It is unclear whether the result of increased federal involvement will produce beneficial outcomes.

SURGICAL EQUIPMENT

See Abstract No. 734

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract Nos. 706, 740

RECRUITMENT AND MANPOWER

See Abstract Nos. 627, 629, 704

CONDITIONS OF SERVICE

620. MARRINER, Ann, editor. **Current perspectives in nursing management.** Volume one. St. Louis, London, C. V. Mosby, 1979. xiii, 214pp. bibliogs. ISBN 0 8016 3120 3 £5.50

This is a collection of 17 essays by leading American academic and research personnel concerned with nursing education, and covers a wide range of topics important to middle management. The book includes papers on directing patient care, evaluating staff performance, team nursing, primary nursing, planned change and communication, the teaching function of the nurses, legal aspects of nursing and nursing research. References are included at the end of each paper.

621. BIRT, C. A. **How are junior hospital doctors employed? A study in North Western England.** *Public Health*, London, 1980, March, vol. 94, no. 2, pp. 105-115.

An investigation was carried out in 1975 in every district in the North Western Region to: (i) measure the levels of junior medical staffing in the various specialties; and (ii) to identify and estimate some indices of the work load imposed upon these doctors, district by district. Information was collected from three sources: (i) area personnel departments; (ii) the regional health authority's S.H.3 statistics; and (iii) a questionnaire sent to individual junior hospital doctors. Study of the results revealed that while, for most specialties, there were significant differences between districts as regards the number of hours each week during which junior doctors were required to be on duty, any differences between districts in terms of apparent work load per doctor were much smaller, and usually not significant. This suggests that in some health districts much more effective use is made of available junior hospital doctors than is apparently the case in others. The latter districts could reduce their duty requirements of certain junior doctors, which would result in budgeting savings, without the need to cut the real level of patient services.

STAFF MANAGEMENT

See Abstract No. 624

STAFF RELATIONS

622. BOSANQUET, N. **Unions and hospitals: the American case.** *British Medical Journal*, London, 1980, March 15, vol. 280, pp. 806, 807.

A British view of the position of trades unions in United States hospitals is presented, with particular reference to the Greater Boston and New York areas. There are similarities between industrial relations in the United States and in the British National Health Service. But the main theme in the United States seems to be how the struggle over union recognition has helped to divert attention away from the key questions about the function of hospitals and the appropriate commitment by society to health

care. Industrial relations, whether unions are present or absent, creates a world of drama and incident which makes it difficult to reach the important issues. Under the American system 'freedom' is identified with a certain direction of growth for hospital care. Does Britain have the courage to face underlying differences about the meaning of freedom under its own system?

STAFF TRAINING

See also Abstract Nos. 628, 630, 664, 705, 719

623. SHAH, A. R. **A computer-aided interactive procedure to improve nurse-training programmes.** *Medical Informatics*, London, 1979, Oct./Dec., vol. 4, no. 4, pp. 209-218.

Nurses make up the largest single resource in terms of staff employed in the National Health Service. As trainee nurses constitute about 30 per cent of nursing staff and sometimes provide over 60 per cent of bedside care, the design of nurse training programmes should receive considerable attention. The production of a training programme which provides: (i) learners for clinical experience in accordance with available numbers and wastage rates; and (ii) a balance of seniority of nurses, is cumbersome to handle manually. The computer-aided procedure described enables the user to evaluate and improve a given training programme. The computer can print out the programme and the number of learners available for each week of the year. The user can then improve the programme by making alterations in study, annual leave and clinical allocations. A sample print-out of the use of this procedure is given as an appendix.

STAFF WELFARE

See also Abstract Nos. 680, 699

624. BECHTOLD, S. E., SZILAGYI, A. D. and SIMS, H. P. **Antecedents of employee satisfaction in a hospital environment.** *Health Care Management Review*, Germantown, Md., 1980, vol. 5, no. 1, pp. 77-88.

In a study at a large university medical centre, completed questionnaires were collected from 1,161 staff (including 53 administrative, 249 professional, 132 technical, 227 clerical and 272 service). Two distinct sets of variables were measured: job characteristics and work satisfaction. There was usually a positive relationship between job scope and work satisfaction but the average level of satisfaction was usually higher for higher occupational levels. Other noteworthy results were: (i) the relationship between job scope and work satisfaction was very strong in the professional group and indicated that the major source of satisfaction for these staff was the work itself; and (ii) staff in the lowest occupational level (service group) apparently experienced a higher degree of work satisfaction when their jobs had higher levels of job scope. The implications of these findings for hospital management are discussed, with particular reference to the implementation of job redesign.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 647

625. SAGER, B. Försök i Lund: helt ny yrkesroll för klinikföreståndarna. **[An experiment at Lund Hospital: a completely new work role for medical unit administrators.]** *Vårdfacket*, Stockholm, 1980, March 20, vol. 4, no. 6, pp. 60-62.

A new system for the management of clinical departments is being tried out at Lund Hospital, Sweden. The aim is to give greater independence to hospitals and hospital departments through a system of decentralization. The duties of the 'departmental manager' fall under four main headings: (i) staff administration; (ii) work planning, budgeting and budget follow-up; (iii) development of staffing; and (iv) administration of nursing care, method development, and questions of patient care. In 1980 there will be ten additional departmental manager posts: the need is for a total of 25 such posts so that departmental managers will have a smaller area of responsibility and will be better able to supervise staff and the work they do. The authority of the manager and the degree of independence will vary from department to department.

MEDICAL STAFF

See also Abstract Nos. 621, 704

626. LARSON, J. G. **Physician participation in a teaching hospital's planning: the English experience.** *Health Care Management Review*, Germantown, Md., 1980, vol. 5, no. 1, pp. 69-75.

In 1966 the Joint Working Party on the Organization of Medical Work in Hospitals (the Cogwheel Report) suggested the adoption of a more structured medical staff organization in British hospitals. Consultants would be grouped into clinical divisions which would be responsible to a medical executive committee. The Author studied the Cogwheel model in a teaching hospital to determine how physician involvement in planning was implemented, with the aim of providing certain insights for consideration in the United States. Nine divisional chairmen, 13 other consultants and five members of the administration were interviewed. A number of questions regarding the system are considered and some of the problems of its implementation discussed. Some results of the system are: (i) every clinician receives a more sympathetic hearing; (ii) clinical autonomy has not been eroded; (iii) administration benefits from its participation in divisional meetings; and (iv) resource allocation decisions have been improved through valuable clinical input and greater acceptance by the medical staff. Key elements of the system which might be introduced in United States hospitals are suggested.

627. MCFARLANE, T. **Of circulars, women, and wonderland.** *British Medical Journal*, London, 1980, March 22, vol. 280, pp. 878, 880.

The Department of Health and Social Security Circular PM(79)3 provides that at senior registrar level there will be an agreed allocation of part-time posts for each

medical specialty. The approval is for the individual doctor and not for the post, allowing women doctors to take their approval for a part-time post from one area to another. By the same circular, health authorities are free to establish part-time senior house officer posts and posts for training in general practice. The provisions of PM(79)3 reflect the fact that an increasing proportion of medical school entrants are women, many of whom are seeking part-time training. The number of registrars in training already greatly exceeds that required to provide replacements for existing consultants and to cope with foreseeable expansion. Without long-term expansion in the number of consultants, there seems little point in increasing part-time training for women (it would merely increase competition or produce a new subconsultant grade).

NURSING STAFF

See also Abstract Nos. 620, 623, 645, 662, 683, 699, 705, 717, 720

628. BAILEY, Rosemary Eva. **A study of the impact of training and experience on student nurse attitudes and their perception of certain key roles.** London, University of London, Institute of Education, 1978. 144pp. bibliog.

Two hundred and thirty-five students from six London hospitals were asked to fill in questionnaires to explore the effect of training and experience on attitudes to nursing. Analysis over time showed a significant change in attitudes to nursing and the perception of the ward sister, but not to the perception of the tutor. Factors influencing job satisfaction were found to be correlated with training. A marked discrepancy was found between the role expectation of student nurses for key figures and the expectation of the ward sister, tutor and clinical teacher for their own positions. Finally, there was evidence that tension and anxiety were leading to job dissatisfaction and feigned sickness.

629. UNITED STATES. BUREAU OF HEALTH MANPOWER. DIVISION OF NURSING. **Methods for studying nurse staffing in a patient unit: a manual to aid hospitals in making use of personnel.** (Project Director: Laurel N. Murphy). Springfield, Va., National Technical Information Service, 1978. x, 226pp. bibliog. (DHEW Publication No. HRA 78-3; NTIS HRP-0900595) £4.75

This manual provides procedural instructions to help nursing services plan and determine the extent to which current staffing patterns are producing the expected patient services. Advice is given on conducting patient censuses and staffing surveys, and hospitals are advised to take into account different shifts, the effects of different nursing methods on patient welfare and the costs of provision of care to different patient populations. Effects of differing methods of providing specific services are indicated (e.g. changes in medication administration such as use of a unit dose system). It is recommended that a methodology using patient classification should be adopted and that all changes should be reviewed after an interval to discover their effectiveness.

630. QUINN, S. **The EEC directives: implications for nurse educators.** *Medical Teacher*, London, 1980, March/April, vol. 2, no. 2, pp. 88-92.

The likely effects of the European Communities' Directives on the *Activities of the*

nurse responsible for general care have been the subject of considerable controversy. The educational requirements of the directives are outlined and their implications for nursing education and nurse teachers in the United Kingdom are examined. The theoretical content of the training programme in the directives should not cause any difficulty. It is the organization of practical experience for learners that is producing problems. Learners must now obtain clinical experience in maternity care, community care, mental health care and psychiatry, and the care of the old as well as in medicine, surgery and paediatrics. Clinical teachers will have to be reallocated from acute areas to these specialist areas, with appropriate retraining. More attention will have to be paid to the basic teaching course for nurse teachers and to continuing education.

631. BERARDUCCI, Marie, BLANDFORD, Kathleen and GARANT, Carol A. **The psychiatric liaison nurse in the general hospital.** *General Hospital Psychiatry*, New York, 1979, April, vol. 1, no. 1, pp. 66-72.

The creation and implementation of the post of psychiatric team liaison nurse in three general hospitals are described. The historical evolution and theoretical basis of the role are reviewed, as well as the specific reasons for creation of such a role in each of the three hospitals. Some cases are quoted to demonstrate the function of these nurses and similarities between their work is discussed.

632. ELKIND, A. K. **Nurses, smoking and cancer prevention.** *International Journal of Health Education*, Geneva, 1979, vol. 22, no. 2, pp. 92-101.

This paper considers some aspects of a wider study, in particular nurses' smoking behaviour and its relationship to their views on cancer prevention. Of the 925 female nursing staff of a large hospital complex in north west England, 785 (85 per cent) completed a postal questionnaire. The total staff included 372 trained nurses, 160 learners, 238 untrained nursing auxiliaries and 15 nursery nurses. The results are presented in eight tables and discussed. Of the respondents, 56 per cent were non-smokers, eight per cent occasional smokers (less than one cigarette per day) and 36 per cent regular smokers (one or more cigarettes per day). The 44 per cent of smokers was much the same as found among women in the general population in the United Kingdom, but higher than among other health and teaching groups. This pattern has been seen in studies in other countries. Most of the nurses in the survey accepted to some extent that non-smoking is of value in preventing cancer; trained nurses, older staff and non-smokers were more likely to accept this. The problems disclosed by these findings are discussed, with particular reference to the role of nurses in health education.

633. MYCO, Freda. **A survey on nursing research in relation to the nursing profession in Northern Ireland.** [Coleraine], New University of Ulster, 1979. [iii], 83pp. bibliog.

The aim of this survey was to assess the degree to which those most concerned with administering, managing, and teaching patient care were managing to obtain and implement information on nursing research. The findings relating to education were: (i) nurses in Northern Ireland are not exposed to nurse research findings or methodology in their basic training; and (ii) research is not included regularly in post-registration courses. Little evidence was found that health care institutions operate a systematic

framework of activities to enable nurses to acquire either subject or technical knowledge and there is no central source for information or advice on the implementation of research in Northern Ireland. There was, however, a significant level of interest in research shown by the respondents to the survey.

634. SCHOTOLA, S. Ziele und Normen für die Qualität der Pflege. **[Objectives and norms for the quality of nursing care.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, March, vol. 21, no. 3, pp. 150, 152-154.

The objectives of nursing care may be defined as follows: positive change in the health of the patient (or of the person seeking advice, since modern care is by no means limited to the sick); promotion of the independence of the patient or the family; and the integrating of the functions of nurses, on the basis of partnership with other members of the modern health team. A simple model for analyzing quality of care could include: determining the aspect of care to be studied; selection of two patient groups (a test group and a control group); a decision as to what degrees of nursing care are to be differentiated; a trial run, with detailed testing and changes where necessary; observation of the actual situation and assessment of the discrepancy between desired and actual standards; and determining the steps to be taken to achieve the desired standard of quality and to evaluate the study.

635. DITTRICH, F. Der Pflegedienst im Team des Krankenhauses. **[The nursing service in the hospital team.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, March, vol. 21, no. 3, pp. 133, 134, 136, 139, 140.

In smaller hospitals the nurse has much wider duties than in a large hospital with its many specialist services and staff. Nurses must co-operate with the medical staff if the dignity of the individual patient and his privacy is to be protected. Only in collaboration with administrative and supplies staff will nurses be able to ensure that hospital life for the patient meets a normal civilized standard. The trust placed in nurses by other members of the hospital staff has resulted in nurses carrying out duties outside their professional responsibilities. Human needs and nursing in the strict sense thus often do not get the attention they should have.

ORGANIZATION AND ADMINISTRATION

See Abstract No. 717

GOVERNING BODIES, COMMITTEES

See Abstract Nos. 626, 659

HOSPITAL ARCHIVES

636. PICKSTONE, J. and COYNE, L., editors. **The preservation of NHS records . . . : a handbook for the guidance of NHS personnel and archivists in the North Western health region.** Manchester, University of Manchester, Institute of Science and Technology, Department of History of Science and Technology, 1979. [ii], 22pp.

To historians and archivists, health service records are valuable evidence about the

development of medicine and medical services, and about changes in the health of the people. Because few hospitals have archivists they are advised to consult with local authority staff, who can advise on records to keep and the application of microforms and computers. Legislation requires health services to make arrangements for the selection and disposal of their records and for the proper care of those to be preserved; it has been agreed that no hospital records earlier than 1858 shall be destroyed. Files become available for public inspection after 30 years but medical records and other records with information about individual patients remain closed for 100 years. Useful specific information is given about types of records, period of retention and ultimate disposal.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 613, 655, 660, 736

637. GROOT, L. M. J. Bedrijfsvergelijking als tool of management. **[Administration and efficiency comparisons as a management tool.]** *Hospitalia*, Brussels, 1979, vol. 23, no. 4, pp. 194-198.

Central processing of data is an important aid to management; comparative statistics on staffing and the main financial data can be produced for all types of hospital and institution. The publication of statistics is a by-product of the supply of information to the hospital managements concerned. Figures and tables are not enough in themselves—they must be accompanied by a properly thought out commentary, developed by working parties and qualified discussion groups. There are 45 such groups in Holland, co-operating with the National Hospitals Institute: 20 from the general hospitals and 25 from the nursing homes and psychiatric institutions. Comparison of statistics is a very important activity, with the figures for each institution being discussed under its own name and not just referred to by a code number. Published figures are, however, normally referred to by code number. The hospital can use the figures in its dealings with the authorities, for example, in an analysis of the extent to which rising costs are caused by rises in prices and salaries rather than by increased employment of staff and equipment. Analyses of the figures make it possible to produce cost forecasts and econometric models.

638. KOHLER, F. Ein plädoyer für das Krankenhaus. **[In defence of the hospital.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, Feb., vol. 21, no. 2, pp. 74, 76-80, 83-88.

The author draws on his experience in the Insel Hospital in Berne to defend hospitals in general against charges that they have lost the will to control costs, that they retain outdated management methods and structures, that they make inadequate provision for in-service training, and that they disregard the rights of their patients. He supports his arguments with a table of financial statistics and a graph showing that the Insel Hospital's deficit has not increased since 1975, and the highly satisfactory results of a survey among 6,000 patients.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 656, 694, 746, 750

639. CHRISTIANSON, Jon B. **Long-term care standards: enforcement and compliance.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1979, vol. 4, no. 3, pp. 414-434.

This paper discusses the regulation of long-term care in the United States including methods and incentives for enforcing standards. Empirical evidence concerning the effect of regulation on provider incomes and the relationship of reported compliance with standards and provider operating costs is examined. In the latter case, the evidence is consistent with a self-interest theory of behaviour for the regulatory agencies and inspectors. Ideas for reform of long-term care provision are summarized in the concluding section, with emphasis on their probable impact on the enforcement of standards.

640. PHILLIP, P. J. and DOMBROSK, S. J. **Seasonal patterns of hospital activity.** Lexington, Mass., Lexington Books, 1979. xv, 139pp. bibliog. ISBN 0 669 02926 2 £10.50

Hospital statistics need to be adjusted for seasonal fluctuations in the level and tempo of activity—for instance out-patient attendances tend to be higher in summer than winter, whilst more children are born in autumn than spring. The use of key hospital indicators by the American Hospital Association is explained and the terms are closely defined. Some explanation is given of the concept of seasonal variations and the factors that cause them. The techniques of deseasonalization, trend analysis, forecasting and estimation of annual totals from monthly figures are demonstrated. Various tables are provided to allow statistics to be adjusted according to the region of America they come from.

641. WESTPHAL, M., FRAZIER, E. and MILLER, M. C. **Changes in average length of stay and average charges generated following institution of PSRO Review.** *Health Services Research*, Ann Arbor, Mich., 1979, vol. 14, no. 4, pp. 253-265.

In November 1975 the Medical University of South Carolina Hospital, acting through its utilization review committee, initiated the mandated programme of admission, length of stay and discharge review of all federally funded patients. In this paper data for the five years 1974 to 1978 are presented and reviewed. It is shown that following the institution of review, there was a significant decrease in length of stay and a fall in average charges generated per patient against the inflationary trend. Similar changes did not occur for the non-Medicare/Medicaid patients who were not reviewed. The observed changes occurred even though the review procedure rarely resulted in the denial of services to patients, suggesting an indirect effect of review.

642. MACSTRAVIC, R. E. **Areawide fluctuations in hospital daily census.** *Medical Care*, Hagerstown, Md., 1979, Dec., vol. 17, no. 12, pp. 1229-1237.

The importance of daily variations in hospital census for planning bed requirements

has long been recognized. Traditional models assume that Poisson or normal distribution patterns accurately describe such variations in specific hospital units, entire facilities and groups of hospitals serving the same area. This paper describes a study to determine how well daily census variations in areas served by more than one hospital conform to the normal distribution as expected. The study examined 20 clusters of hospitals in five states, varying in size from aggregate daily census of a little over 100 to over 3,000 and comprising as few as two and as many as 25 hospitals. Separate analyses were made for specific services where the same service was offered by more than one hospital in the area. The results indicated that the traditional statistical distributions are only occasionally accurate. Different services display different census variation patterns. Implications of this finding for regional planning and co-ordination of hospitals are discussed.

APPOINTMENT SYSTEMS, WAITING LISTS

See also Abstract No. 718

643. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. **Waiting for hospital treatment: papers given at or prepared after a seminar held at the NHS Training and Studies Centre, Harrogate on 5-7 July 1978.** London, DHSS, 1980. [iii], 56pp. bibliogs. (Harrogate Seminar Reports [3])

This report comprises the edited versions of papers given at the third of a series of management symposia designed to help clinicians make better use of resources. In March 1978 there were more than 603,000 patients awaiting admission to hospitals in England, comprising some 31,000 urgent and 562,000 non-urgent cases. Over 64 per cent of the urgent cases had been waiting for more than one month, and over 26 per cent of the non-urgent cases more than one year. Advances in medical techniques and rising public expectations have increased waiting lists although a record 5.3 million patients were treated in 1977 and average length of stay had fallen to 8.5 days from 10.3 in 1967. Eleven papers are presented on topics such as waiting lists, day surgery and interpretation of statistics.

OFFICE MANAGEMENT AND METHODS

See Abstract No. 711

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 604, 623, 648, 649, 707, 711

644. REKDALSBAKKEN, W. Elektroniske datamaskiner som tekniske hjelpemidler i medisinsk diagnostikk. **[Electronic data machinery as a technical aid in medical diagnosis.]** *Sykehuset*, Oslo, 1980, vol. 43, no. 1, pp. 7-14.

From being an aid to diagnostic information-gathering techniques the computer has

become a powerful instrument of diagnosis in its own right in, for example, computer tomography and nuclear medicine. In nuclear medicine, small quantities of radioactive isotopes are injected into the patient and the resultant radiation is detected by a gamma-camera and displayed on a television screen. Originally, a powerful computer was coupled to the camera equipment. Modern microprocessor-based systems, however, using microprocessor programmable memories, are compact, flexible, and have a wide range of applications in clinical diagnosis, as in cardiology. In the X-ray field, computerized tomography can build up a series of anatomical sections through the patient's body. The author's hospital (Drammen) uses a G.E. CT/T 8800, but in principle all systems are constructed of the same seven elements: the X-ray system, a data collection unit, controls, a computer, memory media, a floating point array processor and a diagnostic display console. Microprocessors have improved imaging dramatically and further advances may be expected.

645. HANNAH, K. **Computers change role of nursing.** *CIPS Review*, Toronto, Ont., 1979, Oct./Nov., vol. 3, no. 5, pp. 20, 22.

Computer-aided patient care will affect not only the way in which hospitals are operated but also the way in which services are provided and the role of the professions providing those services. Nurses will be confronted with the effects of this technological change in a much greater and more intensive fashion than the other health professions. Present day nursing functions can be divided into three categories: managerial; medically oriented tasks, including physical treatment and administration of medications; and hands-on therapy, in which the use of interpersonal skills and psychological aspects of patient care are applied. Studies have shown that nurses spend approximately 60 per cent of their time in carrying out managerial functions. Computers can minimize the managerial aspects of nursing, thereby increasing the time available for direct patient contact. However, the same studies show that direct patient contact decreases with automation. If supervisory and managerial tasks are taken over by the computer then nursing must reappraise its value system and regrade quality of care at the bedside with prestige and money. The goal must always be patient welfare: technological advances are only one means to that end.

646. GREENWALD, H. P., WOODWARD, J. M. and BERG, D. H. **Transportation of CT scanners: a theory and method of health resources allocation.** *Health Services Research*, Chicago, Ill., 1979, vol. 14, no. 3, pp. 207-219.

Viewing health services in specific regions as packages of interrelated items, the authors examine the economic balance between two divergent aspects of health care: high technology medicine and support services. Whether a region's resources should be allocated to provide more computerized tomographic (CT) scanners, or to promote easier transport for those needing scans is a simple example of this problem. Several strategies designed to achieve appropriate proportions of investment in CT scanners and in transport in the South Chicago region were examined, using a linear programming (LP) model. The cost coefficients of the scanner resources and transport of patients to scanners were estimated. Two restraints were included: (i) demand, in terms of expected use; and (ii) supply, in terms of the capacity of each CT scanner. A series of LP runs were performed to determine the costs of providing 10 years of CT scanners in the study area under various resource allocations and patterns of

scanner deployment. The study showed that: (i) the proper location of scanners is as important for cost containment as their optimum number; and (ii) excess capacity in the use of a single resource, such as CT scanners, need not imply inefficiency in the overall delivery of the service.

SECRETARIAL SERVICES

647. WILLSON, Myra S. **A textbook for ward clerks and unit secretaries.** St. Louis, Mo., London, C. V. Mosby, 1979. xi, 174pp. ISBN 0 8016 5593 5 £7.00

This textbook is intended for use by ward clerks and nursing staff. It begins by describing the role of a ward clerk in the hospital and the need for communication skills. Separate chapters cover receptionist duties, patient records, admission procedures, transcribing orders for doctors, laboratory tests, medicines and treatment. The book is solely concerned with procedures used in hospitals in the United States.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 637

MEDICAL RECORDS

See also Abstract No. 636

648. BLUM, B. I. and others. **Low cost ambulatory medical information system.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Oct./Dec., vol. 4, no. 4, pp. 372-376.

A simple, low-cost computerized minirecord system has been in operation at the Hamman-Baker Medical Clinic, Johns Hopkins Hospital, since mid-1975. The system has three primary components: (i) the minirecord or minimum essential record, which contains a listing of problems and medications, plus information about visits to other clinics; (ii) an appointment system used to organize materials prior to clinic visits and assist in the follow-up of high-risk special patients; and (iii) an encounter data system to prepare reports used for management, quality assurance and training. Evaluation showed that: (i) the minirecord resulted in more comprehensive problem recognition at following visits; (ii) 95 per cent of the minirecords reflected accurately the last progress notes; and (iii) availability of the minirecord is better than chart availability. The on-line use of the minirecord system is a measure of its acceptance. The costs compare favourably with other systems.

649. BASDEN, A. and CLARK, E. M. **Errors in a computerized medical records system [CLINICS].** *Medical Informatics*, London, 1979, Oct./Dec., vol. 4, no. 4, pp. 203-208.

The accuracy of computerized medical information is of critical importance in patient care. This paper reports on the errors which were detected by checking the consistency of stored data with incoming data at the Southampton University Primary Medical Care computer system (CLINICS). The system stores patient and clinical

data on about 8,000 patients registered at Aldermoor Health Centre. The two processes of checking clinical data when it is entered, syntax checking and context checking, are described. A total of 4,563 clinical records relating to 12 per cent of the practice population were analyzed for the types of error they contained. Sixty-five per cent of the patient errors arose in the registration process, 83 per cent of the problem number errors were caused by the providers of the information and 51 per cent of the problem code errors occurred at the data entry stage. Most of the errors were caused by unclear handwriting. Any information system of this kind must have extensive error detection routines. In the CLINICS system context checking has enabled stored data to be less than one per cent in error.

HOSPITAL STATISTICS

See also Abstract Nos. 640, 642, 716

650. Statistique de morbidité dans les établissements d'hospitalisation publics années 1975 et 1976. **[Public hospital in-patient statistics, 1975 and 1976.]** *Santé Securité Sociale Statistiques et Commentaires*, Paris, 1980, Jan./Feb., no. 1, pp. 11-99.

For these statistics returns from 386 local, general, and regional hospitals (out of a possible total of 526) were used for 1975 and returns from 361 hospitals for 1976; the extent to which the survey is representative is analyzed in two tables. A further 24 tables give reasons for admission to hospital for children, adults, and elderly persons; categories of morbidity (injury, intoxication, diseases, congenital anomalies, complications of pregnancy and childbirth etc.) according to age and sex; patients in each type of hospital according to category diagnosed; average length of stay; and the proportion of deaths per 100 patients discharged. Further tables in an annex give the number of beds represented in the morbidity statistics by type of hospital and by each of 33 disciplines (general medicine, cardiology, neurosurgery, etc.) for France as a whole and then for each Département. The tables are accompanied by a short explanatory introduction and by five graphs.

PUBLIC RELATIONS

651. JONGE, A. D. de. Ziekenhuis en media. **[The hospital and the media.]** *Ziekenhuis*, Utrecht, 1980, March 5, vol. 10, no. 5, pp. 148-151.

The paper discusses relationships between hospitals and the media, based on experience in the University Hospital, Leiden. The hospital can take either an active or passive role in presenting itself—an example of the active role would be publicizing a new building; a passive role would be allowing questioning on an accident. Subjects of interest to the media are: (i) administration, this includes the hospital's administration and outside changes affecting the hospital, such as legislation; (ii) events, e.g. opening a new department; (iii) facts and figures, basic data, including their source, which should always be available as well as comparisons with figures from other institutions; and (iv) medical subjects, these range from popular topics to medical scientific research and advanced forms of treatment. Medical errors and accidents present particularly delicate problems, and here patients' privacy must be safeguarded and insurance aspects and legal implications observed—a special hospital information commission in such cases is advisable. Hospitals generally give no information about individual

patients, but exceptions are made for public figures and corrections in cases of wrong reporting. Patients themselves are free to communicate with the media.

LEGAL AND ETHICAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract No. 686

652. COHEN, K. P. **Living with death: some legal considerations.** *Family and Community Health*, Germantown, Md., 1979, Nov., vol. 2, no. 3, pp. 1-16.

Despite recent definitions of brain death, continuing controversy in the United States shows that the definition of death is not as precise as expected. By 1977, 18 states had enacted a statutory definition of death as occurring when brain function ceases, but the specific criteria for determining this cessation have never been clearly defined. In September 1976 California enacted natural death legislation whereby persons may provide for the withholding or withdrawing of medical care in the case of terminal illness. The physician decides whether the circumstances justify putting the directive into effect and the law as a whole leaves many eventualities not dealt with. The Californian act became the model for similar laws in seven other states and 35 more states had 'right-to-die' bills before their legislatures in 1977 and 1978. 'Living wills' have similar aims, but are not legally binding. Cardiac resuscitation is not indicated in the case of terminal illness where death is imminent. An instruction, called a 'no code' order, is required from a patient's physician if resuscitation is not to be indicated. Hospice care, which offers palliative care to the terminal patient and support to his family has developed in the United States over the last eight years. Fatal illness involves a type of caring which is not provided in acute hospitals or nursing homes but so far only two states have enacted laws relating to hospices.

653. UNITED STATES. NATIONAL ACADEMY OF SCIENCES. INSTITUTE OF MEDICINE. DIVISION OF LEGAL, ETHICAL AND EDUCATIONAL ASPECTS OF HEALTH. **Beyond malpractice: compensation for medical injuries; a policy analysis.** (Project Director: Michael R. Pollard. Chairman of steering committee: John R. Hogness). Washington, D.C., National Academy of Sciences, 1978. xiii, 88pp. (IOM-78-01) ISBN 0 309 02765 9 £4.25

This document considers the report of a Medical Injury Compensation Committee and is chiefly concerned with the situation in the United States, although a brief description is given of the situation in Sweden and New Zealand. The chapters are as follows: (i) background on medical malpractice; (ii) evaluation of approaches to compensation; (iii) legal aspects of medical injury compensation; and (iv) future directions for policy and research.

OTHER SPECIAL ASPECTS

See also Abstract No. 742

654. NEW SOUTH WALES HOSPITALS PLANNING ADVISORY CENTRE. **Seminar report: hospital security.** Surrey Hills, N.S.W., Hospitals Planning Advisory Centre, 1979. [ii], 31pp. (Hosplan Seminar Report No. 24) ISBN 0 7240 3922 8

Papers presented here cover the following: (i) property and personnel protection;

(ii) security systems; and (iii) cash security. A report of the resultant discussions is given and the booklet concludes with a description of the types of intruder alarms available.

655. GRIFFIN, A. and ADAMS, S. **Shared services: a long term commitment or a short term fad?** *Hospital Topics*, Chicago, Ill., 1980, Jan./Feb., vol. 58, no. 1, pp. 38-43.

Shared services are defined as the medical or administrative products or functions which are owned or used co-operatively by two or more hospitals in order to contain costs or expand services. Several shared service organizations have developed in the United States. These are organized for group buying or for sharing laboratory facilities or medical staff. However, the author's research carried out in 33 hospitals revealed that hospital administrators, although taking part in some shared service, varied considerably in their commitment to the shared service concept. Hospitals most interested in shared service schemes tended to be small and privately owned, while larger hospitals tended to operate over a wider area in competition with shared service organizations. Administrators need to view hospitals as part of a larger community health system in order to understand the value of shared services. In addition, many shared service organizations failed to offer the administrator adequate assurance of product standardization or any means of evaluating costs. If hospitals continue to compete with shared service organizations and sharing is limited to purchasing of goods, the concept of shared services will have little economic benefit.

FINANCE AND ACCOUNTING

656. ADLER, Mark and BROWN, Curtland C. **Who reviews the reviewers? A retrospective study of Medicare determinations.** *New England Journal of Medicine*, Boston, Mass., 1980, April 10, vol. 302, no. 15, pp. 842-844.

The overriding rule of the Medicare programme stipulates that the care given should be 'reasonable and necessary' and the reviewing nurse makes this determination. Cases in doubt may be referred to a Medicare Consultant Physician; the validity of this reviewing has not been studied. To examine this issue the authors looked at the clinical course, level of severity, and outcome in 61 consecutive stroke victims determined to be ineligible for a rehabilitation-hospital level of care by the Medicare intermediary. A randomly selected group of stroke victims served as controls. The study showed no medically valid reason for the Medicare rulings: the study group had a shorter length of stay at the acute-care hospital than did the control group. It is suggested that Medicare reviewers should use a quantitative method for evaluation of a patient's disability and potential, rather than a subjective interpretation of what is reasonable and necessary.

657. FEDER, Judith and SPITZ, Bruce. **The politics of hospital payment.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1979, vol. 4, no. 3, pp. 435-463.

This paper analyzes the politics of hospital payment over the last decade in the United States. The authors examine the impact of standards on hospital costs and the political obstacles to imposing an alternative standard and controlling costs. Various

systems are reviewed and reference is made to Canadian and British experiences. Some suggestions are made to allow policymakers, accountable to the public, to make explicit choices about the level and nature of hospital expenditure.

COSTS

See also Abstract Nos. 609, 616, 638, 728, 736

658. COUNCIL OF EUROPE. EUROPEAN PUBLIC HEALTH COMMITTEE. SELECT COMMITTEE OF EXPERTS ON THE COMPARATIVE COSTS OF HEALTH CARE GIVEN INSIDE AND OUTSIDE HOSPITALS. **Final report.** Strasbourg, Council of Europe, 1979. [iii], 26pp. bibliog. (CDSP(79)53)

As examples of diseases or pathological conditions likely to be treated within or outside hospitals the select committee chose arthritis, diabetes mellitus, cancer, coronary diseases, respiratory insufficiencies, mental handicap, childbirth and renal problems. Existing information systems, unfortunately, tend to concentrate on displaying financial and other data in terms of hospital units and departments rather than of specialties or diseases. Some attention is given to the English systems of programme budgeting and decentralized planning. Particular mention is made of the English attempts to balance the distribution of resources for mental health and the Dutch system of home confinements is taken as an example of the possibility of using non-hospital care. The committee advocates a change towards treatment outside hospital, with a strengthening of primary or community care and of preventive medicine. The factors considered were; (i) economic (hospital care uses scarce and high cost resources) and; (ii) social (patient satisfaction, accessibility, community requirements).

659. FAHLE, LeROY D. **Cost containment committees: slowing down the increases.** *Hospital and Health Services Administration*, Chicago, Ill., 1980, vol. 25, no. 1, pp. 38-52.

The American Hospital Association has published a pamphlet recommending that hospitals establish cost containment committees. In Michigan, committees have been established in nearly all hospitals and are seen as adjuncts to care quality supervision committees. The elements in a cost control programme are: (i) a sound structure; (ii) a procedure for identifying problems; (iii) investigative and analytical resources; (iv) a methodology; and (v) selected practical problems (patient scheduling, staff utilization, use of supplies, etc.). Apart from the internal organization of the hospital, the committee must also take into account the services offered by other hospitals and any government initiatives.

660. CLEMENT, J. M. L'hospitalisation sur la sellette. **[Criticisms of hospital care.]** *Techniques Hospitalières*, Paris, 1980, Feb., vol. 35, pp. 57-70.

The author analyzes the proposals, pronouncements and attitudes of the French political parties over the past decade (a total of 98 references) in regard to the hospital service. No party is prepared to abolish the private sector, although Socialist Party statements could be interpreted to mean that this is their long-term objective. All

parties recognize the importance of the hospital in the treatment of certain illnesses and in picking up accident and emergency cases, but all parties are interested in possible alternatives such as day hospitals, community care, convalescent homes, and graduated patient care systems. The main concern of all parties is to reduce costs, rationalize investment and management structures, and reform the tariff system. The author concludes that the future holds even greater changes for the hospital than the last decade has seen. He recommends that the hospitals should not neglect the 'hotel' hospitals which are clearly going to expand.

HOSPITAL ACCOUNTING

661. NEUMANN, B. R. and FRIEDMAN, L. A. **Should financial statements disclose the cost of replacing hospital assets?** *Health Care Management Review*, Germantown, Md., 1980, vol. 5, no. 1, pp. 49-58.

If hospitals are to convince outsiders that health care costs are not rising faster than general inflation, financial statements must report more than historical costs. The disadvantages of general price-level adjustments, which are relatively easy to compute, are discussed. The advantages of replacement-cost accounting include: (i) gains and losses that result from operating activities are separated from those resulting from holding activities; (ii) financial comparisons between groups, units, divisions or whole hospitals are facilitated; (iii) it is an easy system to understand; and (iv) it presents more relevant information on the results of hospital operations. Techniques for determining replacement costs include direct pricing, reproduction costs, unit pricing and specific price indices. Although it may be difficult to actually compute replacement costs, their use is feasible and will provide more meaningful information about the effects of inflation.

662. PETER, G. Zusammenarbeit Pflegedienst: Verwaltung in der Kostenrechnung. **[Cost accounting: collaboration of nursing staff and administration.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, March, vol. 21, no. 3, pp. 154, 157, 158.

This is a plea for collaboration between nurses and administrators in the application of cost accounting within the nursing service. It is essential that the principles of cost accounting should be made clear to nursing staff in a form which they can understand. It is also important that nurses should be aware of the essential role cost accounting can play in the efficient and economical running of a hospital.

SUPPLIES AND STORES

663. BERGE, T. Sterilsentral. Driftsøkonomiske synspunkter på graden av sentralisering og bruk av engangs—og flergangsartikler. **[The sterile centre: managerial and economic aspects of centralization and the use of disposable or reusable items.]** *Sykehuset*, Oslo, 1980, vol. 43, no. 1, pp. 14-30.

An efficiently run centralized organization has the following advantages: professional competence and responsibility are located at one spot; highly specialized staff can be

employed; investment in advanced technological equipment is justifiable; standardization reduces the need for a wide range of equipment; a high work flow cuts out 'dead time'; and a central supply and sterilization facility can serve a wide area. The disadvantages comprise: (i) sensitivity to breakdowns and strikes; (ii) the need to keep certain instruments apart from all others; and (iii) storage of large quantities of disposable items. Introduction of disposables has simplified working routines, saved time and improved hygiene. The high degree of standardization entailed has also cut costs, reduced the need for specialized training, and rationalized authorization and purchasing procedures. Against these and other advantages must be set the problems of waste disposal and of the consumption of imported resources. Each department must take the responsibility for rational choice between the two systems.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

664. OLIVER, I. **Value for money training.** *Health and Social Service Journal*, Basingstoke, 1980, March 14, vol. 90, supplement; pp. D5, D7.

All domestic services managers in the National Health Service are responsible for providing comprehensive cleaning services in hospitals and other health service buildings. Staff under them may be at an operating, supervisory or management level and training methods are available for each level. Domestic assistants and ward orderlies must be taught the danger of cross-infection arising from incorrect cleaning procedures. Supervisors may be trained by: (i) a training kit, providing 16 manuals, one per study day, and 16 chairmen's guides; (ii) The City and Guilds Institute 764 Certificate in Cleaning Science, a part-time course run at technical colleges; and (iii) training at operative level in preparation for the Certificate in Supervisory Studies, a course of about 240 hours taken on a day release basis. At management level, the Department of Health and Social Security and the Regional Health Authorities organize jointly the National Training Scheme in Domestic Services, designed to train candidates for posts as managers and assistant managers. A programme of courses to help domestic service managers study a number of specialist techniques was introduced in 1977.

665. HOWIE, H. **Cut cleaning costs—it's all in the timing.** *Health Care*, Don Mills, Ont., 1980, Feb., vol. 22, no. 2, pp. 45, 46, 54.

A long-standing method of controlling cleaning costs, while maintaining the required level of service, is the use of time standards for individual cleaning operations. Several sets of standards are available. This paper presents the views of a number of directors of housekeeping in Canadian hospitals on the use and value of time standards. It is pointed out that new methods, new equipment and new types of floor covering have made the standards outdated and they cannot be followed rigidly. They may, however, be used effectively as guidelines. A new manual is being developed for the Ontario Hospital Association.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

666. GROSS, P. A. and others. **Deaths from nosocomial infections: experience in a university hospital and a community hospital.** *American Journal of Medicine*, New York, 1980, Feb., vol. 68, pp. 219-223.

The hospital course of two groups of 100 consecutive patients who died at Columbia-Presbyterian Hospital, N.Y., and at Hackensack (N.J.) Hospital were studied to assess the importance of hospital-acquired infections as a contributory cause of death. Though the hospitals provide care for different types of patients, the epidemiological patterns of infection were similar. There were 88 hospital infections in 63 patients. When the infection was causally related or contributed to death, infection of the lower respiratory tract was predominant in 31 (60 per cent) of 52 infections. When the infection was unrelated to death, urinary tract infection was predominant in 13 (36 per cent) of 36 infections. Among those who died with hospital infection, 42 (67 per cent) patients were terminal on admission and were typically in their 60s with metastic carcinoma. The 21 patients who were not terminal on admission were typically in their late 70s and had complications of arteriosclerotic cardiovascular disease. Pneumonia was the most frequent hospital infection related to death. There is a need to devise a pneumonia prevention programme that identifies those at high risk and reduce the chance of aspiration of pharyngeal secretions and spread of virulent bacteria from person to person.

667. CUBITT, W. D. and HOLZEL, H. **An outbreak of rotavirus infection in a long-stay ward of a geriatric hospital.** *Journal of Clinical Pathology*, London, 1980, March, vol. 33, no. 3, pp. 306-308.

An outbreak of rotavirus infection in elderly patients in a long-stay ward of a geriatric hospital is described. The virus was detected in 47 per cent of individuals displaying symptoms, which included four members of staff. The findings indicate that rotavirus infection is an important cause of outbreaks of diarrhoea in adults in closed communities and demonstrate that appropriate control measures such as isolation and use of electron microscopy, can limit the extent of such outbreaks.

668. RANDALL, Clare. **The problem of *Pseudomonas cepacia* in a hospital.** *Canadian Journal of Public Health*, Ottawa, Ont., 1980, March/April, vol. 71, no. 2, pp. 119-123.

The investigation into a long standing nosocomial infection in Victoria Hospital, London, Ont., with *Pseudomonas cepacia* is described. An epidemiological approach to find the source showed that distilled water from the pharmacy department, used to make up disinfectant solutions, was contaminated. Despite the persistence of this contamination, measures taken to prevent the organism from infecting patients were effective.

PREVENTION AND CONTROL

See also Abstract No. 722

669. CUNHA, B. A. and others. **A common source outbreak of *Acinetobacter* pulmonary infections traced to Wright respirometers.** *Postgraduate Medical Journal*, Oxford, 1980, March, vol. 56, no. 653, pp. 169-172.

Hartford (Conn.) Hospital is a 1,000-bed teaching hospital with six intensive care units. Over a 30-day period in four of the units, 10 patients developed hospital-acquired pneumonia due to *Acinetobacter calcoaceticus* var. *antiratus*, and a further nine were colonized in the upper respiratory tract. Wright respirometers contaminated by this organism were shown to be the common source for the outbreak as indicated by the recovery of a single serotype (8J). The failure to recover *Acinetobacter* from any other environmental source demonstrates that moisturized Wright respirometers are capable of 'aerosolizing' fluids containing *Acinetobacter*. Control measures included restricting the use of each respirometer to one unit, strict enforcement of careful hand washing techniques, and modification of respirometer usage.

HYGIENE IN THE OPERATING THEATRE

670. HOWORTH, F. H. **Air flow patterns in the operating theatre.** *Hospital Engineering*, London, 1980, March, vol. 34, no. 2, pp. 25-29.

A study sponsored by the Medical Research Council showed that a downward flow of clean air in the operating theatre reduces the number of bacteria-carrying particles at the wound site by as much as 60 times. The EXFLOW canopy method of achieving this without any physical restrictions to operating staff is described. In addition, the wearing of a total body exhaust system by the surgical teams reduces the bacteria count by a further 12 times. Clinical results showed that when these systems are used together, patient infection is reduced from nine per cent to between 0.3 and 0.5 per cent, even without the use of pre-operative antibiotics. A survey of over 100 operating suites showed that anaesthetic gas pollution was 1,000 ppm in operating and recovering rooms. The operation of a high volume low pressure active scavenging system to deal with this problem is described. Various attachments make it suitable for scavenging in paediatrics, dentistry and labour rooms. Results showed a reduction of nitrous oxide pollution to between zero and three ppm. Both these pollution control systems were cost-effective as they used little power and removed a health hazard from both patients and theatre staff.

671. BURCKHARDT, A. Praktische Erfahrungen mit der ultrasterilen Operationszone EF-12 Charnley-Howarth. **[Practical experience of the EF-12 Charnley-Howarth ultra-sterile operating zone.]** *Swiss Medicine*, [n.p.], 1979, vol. 1, no. 12, pp. 31-34.

The special Exflow 12 Charnley-Howarth ultra sterile operating zone, which has been in use at the Solothuvn Cantonal Hospital since August 1978, is described and

illustrated. It is designed for use when joint replacements are being implanted and obviates the need for dividing walls in the operating theatre. Vertical air flow in the centre of the zone is more rapid than in the outer area and the flow is always directed away from the zone. Two-thirds of the air comes from the theatre itself and one-third from the air-conditioning installation: all air in the theatre is filtered. An air-flow speed of 0.5m./second (corresponding to 450 air changes per hour or 11,000 cu m. per hour) is used for leg operations and a slower speed of 0.22 m./second for other operations. Special protective clothing, including a helmet, is worn by operating staff, and this makes for greater comfort. Seven hundred and eighteen operations have so far been performed, with a total of only five infections.

672. DUVLIS, Z. and DRESCHER, J. Untersuchungen über den Luftkeimgehalt in konventionell klimatisierten Operationssälen. **[Investigations on the concentration of air-borne germs in conventionally air-conditioned operating theatres.]** *Zentralblatt für Bakteriologie* 1. *Abt. Orig. B*, Stuttgart, 1980, Feb., vol. 170, no. 1/2, pp. 185-198.

An analysis of the various factors which affect the concentration of airborne bacteria during surgical operations shows that the number of persons present (and whether they wear sterile or non-sterile clothing), the air exchange rate per hour and the room volume are of primary importance. The following formula has been worked out for the relationship between these factors: $K=\frac{1870}{Rv}\left(\frac{X}{2}+Z\right)(1\ 12/U)$ where K=the average bacterial aircount colonies per cubic metre) per unit of time (5 mins); Rv=room volume; X=number of persons present in sterile clothing; Z=the number of persons in non-sterile clothing; U=air change rate per hour; 1870 is the proportionality factor; and Z is the optimal value for n. Tested during 142 operations the formula has given reliable estimates of concentrations of airborne micro-organisms.

STERILIZATION

See also Abstract No. 663

673. BRUSA, A., TOSETTI, L. and BICCHI, C. La sterilizzazione con ossido di etilene in ambita ospedaliero. Principali problemi e valutazione dei residui sui materiali. **[Ethylene oxide sterilization in the hospital. Main problems and evaluation of residues in materials.]** *Ospedale*, Torino, 1980, Feb., no. 2, pp. 39-52.

Ethylene oxide sterilization should only be permitted in those hospitals where all the conditions necessary for sound sterilization and monitoring practice (plant, laboratory equipment, staff) in regard to standards for the use of toxic gases are complied with. The authors review the literature on the clinical and experimental toxicology of ethylene oxide. They discuss the problems inherent in the sterilization techniques and stress that: (i) material to be sterilized in this way must be carefully selected; (ii) the characteristics required of the sterilizing equipment should be defined; and (iii) measurements must be taken to assess gas residues after sterilization and determine the maximum permitted levels so that the time required for aeration can be fixed. The various methods which can be used to determine gas residues are reviewed, and gas chromatography is considered to be the most effective of these. The authors also recom-

mend that new sterilization equipment should be fully documented by the manufacturer as regards chemical composition, techniques and procedures for eventual re-use and re-sterilization. A bibliography of 68 references to books and articles and six references to Italian legislation on the subject concludes the article.

674. SCHLEDORN, D. B., VRIES, J. de and KRUGERS, P. G. L. C. De houdbaarheid van gesteriliseerde produkten. **[The lasting quality of sterilized articles.]** *Ziekenhuis*, Utrecht, 1980, March 5, vol. 10, no. 5, pp. 134-135.

A working group set up by the National Hospital Council carried out a survey among 252 hospitals on their management of sterilized articles. Twelve questions were asked, covering methods of sterilization, outside buying, use of disposables, storage, packing, transport, labelling, dating, coding, and suggestions for improvements. Replies revealed that lasting quality varied considerably in different hospitals whilst bought sterilized products lasted longer than those sterilized in hospital sterilizing units. The two important factors determining the lasting quality were packing and storage. The working group recommends that packing material should not change during the sterilization process, should provide sufficient protection against contamination, carry a colour indicator that sterilization has been carried out, bear a clearly marked expiry date and be removable without endangering the product's sterile condition. Storage environment should take account of humidity, dust control and prevention of contamination. A manager/supervisor for sterilized articles is recommended, as well as special storage rooms. Each batch of sterilized goods should contain a leaflet with storage instructions.

AIR HYGIENE

See Abstract Nos. 670, 672

DISPOSAL OF WASTE

675. Un impianto di incinerimento tra i più grandi del mondo all'ospedale di Verona. **[One of the largest incinerating plants in the world in Verona Hospital.]** *Tecnica Ospedaliera*, Milano, 1980, March, no. 3, pp. 50-53.

This is a short, technical description of the Dragon IDM 100 HF incinerator which has now been operating successfully at the Borgo Roma Civil Hospital in Verona for two years. The furnace has a system of grids and an Austerlitz electrostatic precipitator, and has fewer intermediate combustion products than the conventional pyrolitic furnace. Photographs of the incinerator and precipitator are reproduced, and there is a large diagram of the whole system.

INSECT AND PEST CONTROL

676. SOUTHAM, N. **Nemesis for pharaoh's ant.** *Health and Social Service Journal*, Basingstoke, 1980, March 14, vol. 90, supplement; pp. D8, D10, D11.

Greater awareness of the danger of infestation and the need for effective control has been encouraged in hospitals both by the Department of Health and Social Security

and the pest control industry. The major species of pests are: (i) cockroaches; the oriental cockroach is most prevalent, but the German cockroach with its liking for a humid environment is more difficult to control; (ii) ants, the Pharaoh's ant being the most hazardous and the most difficult to eradicate; (iii) rodents, particularly house mice; and (iv) cats, often followed by fleas. House flies, bed bugs and crickets are still prevalent despite costly attempts to deal with them. A successful campaign to rid premises of pests should follow six simple procedures: (i) recognition of the problem; (ii) a survey to determine the extent of infestation and a decision on priorities; (iii) thorough cleaning of the area to be treated; (iv) selection of treatment measures according to the environment using pesticides which comply with the Pesticides Safety Precautions Scheme; (v) maintenance of structures to prevent the entry of more pests; and (vi) monitoring to keep the level of infestation below the level of detection.

SAFETY MEASURES

See also Abstract Nos. 673, 708

677. CASTRO, H. M. R. de. O hospital como factor de seguranca individual e coletiva. **[The hospital as a factor in individual and collective safety.]** *Revista Paulista de Hospitais*, São Paulo, 1979, Oct., vol. 27, no. 10, pp. 318-322.

This is a short review of the factors which affect the safety of patients and staff in the hospital. These factors include buildings and equipment, the prevention of accidents, the limits of tolerance of contaminants, biological agents (viruses, bacteria, fungi, and parasites), ergonomic factors (fatigue, monotony, lighting conditions), and staff training. The author recommends the establishment of minimum standards of care so that the patient's physical, therapeutic, psychosocial, rehabilitational, and environmental needs can be met.

ACCIDENTS, GENERALLY

678. WHITE, D. C. **The management of safety in hospitals in Denmark and Sweden: a report.** Coventry, Coventry Area Health Authority, 1979. [ii], 20pp.

This report contrasts systems of safety management in Denmark and Sweden with those in Great Britain. The author was impressed by the Scandinavian arrangements for collecting and analyzing data on accidents and the practice of training management and staff safety representatives together. Equipment was better in Denmark and Sweden with: (i) smoke detectors in all hospitals; (ii) audible and visible indicators on each floor to pin-point fires; and (iii) closed circuit television to control traffic and access. All new staff were required to read the departmental fire manual and familiarize themselves with escape routes.

ELECTRICAL HAZARDS

679. BERGER, J. **Guidelines for developing an effective electrical safety program.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Oct./Dec., vol. 4, no. 4, pp. 321-327.

All hospitals should have a working electrical safety programme which satisfies their

administration and the outside agencies which have authority over the services dispensed in the hospital. This paper describes briefly how such a programme was developed at Boston University Medical Center. The policy and procedures are included as an appendix. The benefits realized from establishing the policy and writing the guide book are listed.

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

See also Abstract Nos. 618, 703

680. LECKY, J. H. **Anesthetic pollution in the operating room: a notice to operating room personnel.** *Anesthesiology*, Park Ridge, Ill., 1980, Feb., vol. 52, no. 2, pp. 157-159.

While controversy remains concerning the health hazard of trace levels of anaesthetic gases in operating theatre air, the epidemiological and animal data are sufficiently indicative to cause concern. At present, a criteria document compiled by the National Institute of Occupational Safety and Health is being reviewed by the Occupational Safety and Health Administration in anticipation of promulgation as law. The author believes a modification of the document would be appropriate. A letter (reproduced as an appendix) was sent to members of the nursing, surgical, anaesthesia and operating theatre housekeeping staff of the Hospital of the University of Pennsylvania. Its purpose was to make them aware of: (i) the potential hazard; (ii) efforts being made to limit it; (iii) whom to contact for further information; and (iv) their option of being moved to another area. An acknowledgement sheet and questionnaire accompanied the letter. Of 408 letters mailed, 400 elicited responses. While a significant number of respondents expressed concern, few indicated that they would seek employment elsewhere; 90 per cent of those who did, would seek transfer only for the duration of a pregnancy.

FIRES AND FIRE PREVENTION

See also Abstract No. 678

681. HINKLEY, P. **Hospitals don't burn—or do they?** *Building Technology and Management*, Ascot, 1980, March, vol. 18, no. 3, pp. 29-32.

This paper discusses the risks of fire in hospitals and the ways in which the building fabric affects the level of risk. In particular, it emphasizes some of the problems arising from: spread of fire and smoke; wall and ceiling lines and finishes; fire resistance; suspended ceilings; cavity barriers and fire stops; and doors.

682. ROBINSON, P. **The Home Office approach to hospitals and the Fire Precautions Act 1971.** *Hospital Engineering*, London, 1980, April, vol. 34, no. 3, pp. 16-18.

There are over 30 statutes in the U.K. which contain fire protection provisions of one sort or another. A review is given of the legislation, particularly as it applies to new hospital buildings. At present there is no fire certification of the 3,000 existing hospitals and nursing homes but the author believes this should be gradually achieved.

683. GRIMSGAARD, Ø. H. Brann: idag: sykepleieren i fokus. **[Fire: the continuing need for nurses to be informed.]** *Sykehuset*, Oslo, 1980, vol. 43, no. 1, pp. 31-33.

Many nurses are afraid of what might happen if there were a fire—particularly since

80 per cent of fires are caused by patients smoking in bed. Training and frequent fire drills are the key to correct action without panic. Statistics show that two thirds of hospital fires are out before the fire brigade gets there: it is the first few minutes which are vital. The walls and doors of modern buildings will keep fire contained for from 30 to 60 minutes, so patients should be left undisturbed in their rooms until the exact extent of the danger has been assessed. The hospital must place the responsibility for training health institution staff on the technical director of the institution or on the local fire station officer. An inter-departmental commission has been set up in Norway to clarify the whole fire readiness situation.

684. BELL, J. R. **Hospital fire shows value of planning, design, training.** *Fire Journal*, Boston, Mass., 1980, March, vol. 74, no. 2, pp. 65-71, 83.

On 4 July 1979, a fire started in the waiting area of an out-patient clinic on the 10th floor of the Touro Infirmary, New Orleans. This paper describes the outbreak, the staff and fire department actions, the evacuation and relocation of patients, the construction and fire protection features of the building, and the damage and casualties. Analysis of the outbreak shows that the fire did not spread beyond the general area of origin because of the good fire protection design of the building, including the presence of fire detection systems, and the fire department's pre-planning. Smoke and heat spread were also limited, but were sufficient to prompt the hospital staff to relocate or evacuate approximately 125 patients. As a result of their monthly training in evacuation, relocation and other aspects of the hospital's comprehensive fire plan, the staff were able to carry out the evacuation so smoothly that many patients thought they were participating in a fire drill.

THE PATIENT

ADMISSION AND RECEPTION

See Abstract No. 738

WELFARE OF THE PATIENT

See also Abstract Nos. 632, 677, 689, 723, 724, 745

685. KEEP, P., JAMES, J. and INMAN, M. **Windows in the intensive therapy unit.** *Anaesthesia*, Oxford, 1980, March, vol. 35, no. 3, pp. 257-262.

Surveys were carried out on two groups of patients who had survived a stay of 48 hours or over in an intensive therapy unit. One group had been in the windowless unit at the Norfolk and Norwich Hospital and the other at a similar unit at Freedom Fields Hospital, Plymouth with translucent, but not transparent windows. Those in the unit without windows had a less accurate memory of their length of stay. The incidence of hallucinations and delusions among patients was also much higher in the windowless unit and a few patients underwent 'out of the body' experiences. The ability to observe times of day and, with transparent windows, to see out, provides an important link with normality for the patient in intensive care. Provision of natural light should be an essential feature of intensive care unit design.

686. SEARLE, J. and COLLINS, C. **A brain-death protocol.** *Lancet*, London, 1980, March 22, vol. i, pp. 641-643.

A protocol for the management of patients thought to have suffered brain death was drawn up in the intensive therapy unit of the Royal Devon and Exeter Hospital in accordance with the criteria laid down by the Conference of Medical Royal Colleges and their Faculties in 1976. The protocol includes a list of questions with regard to respiration, brainstem reflexes, body temperature and any drugs recently administered. There is a wide range in the intervals between tests for brain death, but the same examination routine is always followed. When brain death has been confirmed, the situation is explained to relatives competently and compassionately. If the relatives give permission for the removal of organs for transplant, the protocol enables the procedure to be carried out quickly. Between July 1977 and July 1979, 22 patients in the intensive therapy unit suffered brain death. Kidneys were donated from 11 of these patients and eyes from four. The management of brain death and the provision of organs for transplant are best dealt with by one department in a hospital.

687. BENICKI, A. and CULL, A. **The toy library: 1. Establishing a scheme for the mentally handicapped. 2. The questionnaire survey.** *Nursing Times*, London, 1980, March 6, vol. 76, no. 10, occasional papers; pp. 29-32.

The first part of this paper describes the establishment in 1973 and subsequent development of a toy library at Gogarburn Hospital, Edinburgh, for the mentally handicapped. The original concern with the provision of toys for children developed into the present aim to provide a play and recreational service for adults and children alike. The hospital now employs a toy designer, an art college graduate, to provide equipment for the high dependency patients. The second part presents the outcome of two questionnaire surveys in April 1976 and April 1978 to evaluate the impression the toy library had made on the nursing staff. The questionnaires covered: (i) what the staff knew about the toy library; (ii) the use of equipment, its selection, supervision, storage and space required; (iii) possible reasons for non-use; and (iv) whether play was of use to the mentally handicapped and whether staff would like to learn more about it. The results of the first survey were used to establish a management policy for the development of the service. A comparison of the outcomes of the two surveys looks at the effect of this policy upon the mental handicap nurse in the role of educator and trainer.

688. LUDLAM, J. E. **Informed consent.** Chicago, Ill., American Hospital Association, 1978. vi, 89pp. bibliog. ISBN 0 87258 243 4 $4.40

This book, commissioned by the American Hospital Association, deals with American state law, cases and law reviews. Court decisions indicate that patients have a right to participate in and control medical decisions and, ultimately, make 'wrong' choices. Hospitals obtain written consent to medical procedures and doctors are now being required to formally explain choices and record such communications. Patient education is being stressed in many hospitals and administrative staff as well as medical are having to become involved in supervision and explanation of care. A model consent form is illustrated and elements to be included in legislation are listed.

HOSPITAL SOCIAL WORK

See also Abstract Nos. 700, 741

689. SCHROEDER, Christine M. **Communicating with hard-to-reach patients.** *Health and Social Work*, Albany, N.Y., 1980, Feb. 1, vol. 5, no. 1, pp. 35-39.

Effective communication is essential for successful casework and it depends on active participation by both patient and social worker. Blocks to communication that hinder work with certain patients with organically based illnesses can be overcome with imagination and forethought. The article identifies some techniques useful in working with such patients, but it is crucial that staff do not let their frustration in communicating alienate them from their patients. Feelings of inadequacy cannot be allowed to separate social workers from their patients. Devising techniques to enhance communication with the hard-to-reach patient is an area of social work practice greatly in need of exploration.

THE GENERAL PRACTITIONER AND HIS PATIENTS

690. AMBROSE, Donald M. **Primary care group practice: impact on a community hospital.** *Hospital and Health Services Administration*, Chicago, Ill., 1980, vol. 25, no. 1, pp. 86-100.

Richmond Memorial Hospital (Va.) runs a service providing 70,000 patient visits each year. The primary care service was developed during the 1970's in response to a decline in hospital admissions. Four health centres are staffed by full-time employees of the hospital; in the organization the centres constitute a hospital department. Clinical freedom is retained to refer patients to whichever specialist is considered appropriate. As a result of the programme the hospital's in-patient/out-patient ratio became more balanced and the workloads of the hospital's laboratory, radiology and other ancillary services were increased.

TRANSPORT OF PATIENTS

See Abstract Nos. 646, 720, 721

HOSPITAL CARE

See also Abstract Nos. 615, 634, 635, 641, 653, 725, 733, 735, 737, 744

691. DAVIS, M. Z. **The organizational, interactional and care-oriented conditions for patient participation in continuity of care: a framework for staff intervention.** *Social Science and Medicine*, Oxford, 1980, Jan., vol. 14A, no. 1, pp. 39-47.

This paper, based on data from a recent study 'The Patient's Participation in Continuity of Care', describes the organization and conditions of care in a rehabilitation ward of a large acute care hospital in San Diego, California. The conditions which helped staff to further the part taken by the patient in his own care both in the ward

and after discharge, are discussed under three headings: (i) the ward as an environment for learning; (ii) staff-physician relationships; and (iii) sustaining the ward philosophy of care. The staff's expectations of the patient were essential to the care structure and were explained to the patient and his family. Patients took part in conferences where goals were set for their progress towards self-care. Staff to patient and patient to patient contacts took place in a ward where observation was easy and patients were able to encourage each other. Staff and physicians co-operated well, the ward staff being the recognized experts in certain areas of rehabilitation. Since the completion of this report, the psychiatric service at the hospital has started to develop some of the conditions described, showing that this method of promoting patient participation in care need not be confined to a particular clinical setting.

692. WILSON, L. L. **An Australian perspective.** *Medical Journal of Australia*, Glebe, N.S.W., 1979, Dec. 29, pp. 686-689.

The development of quality assurance systems in Australia is examined in its four essential components: hospital accreditation; delineation of clinical privileges; formal systems of medical care evaluation (peer review); and continuing medical education. The author also indicates some of the organizational deficiencies which exist in the Australian hospital system and some of the factors which have contributed to these problems. The growing pressure for accountability has now become an insistence, and, with stimulus from government, the medical profession has been jolted into a much more rapid rate of movement for change. The recently established Peer Review Resource Centre will be supervising the several pilot trials that have already commenced and initiating and encouraging additional pilot studies.

693. MCGREEVY, Mary E. and COATES, Mary R. **Primary nursing implementation using the project nurse and the nursing process framework.** *Journal of Nursing Administration*, Wakefield, Mass., 1980, Feb., vol. 10, no. 2, pp. 9-15.

The American authors describe their experiences in implementing primary nursing in a pilot unit of a 350-bed acute care hospital of the Veterans Administration. The change from team and functional nursing to primary nursing was organized and implemented by a project nurse. The nursing process steps of assessment, planning, implementation and evaluation were applied. The pilot unit has continued to deliver primary nursing care but a second primary nursing unit has experienced some inconsistency owing to heavy workload and staff turnover. Overall, however, the change has been successful and the planning worthwhile.

694. FLOOD, Ann Barry and others. **The relationship between intensity and duration of medical services and outcomes for hospitalized patients.** *Medical Care*, Philadelphia, Pa., 1979, Nov., vol. 17, no. 11, pp. 1088-1102.

Much recent research on the delivery of health care has concentrated on the issues of cost containment and quality assurance. This paper is on the relationship between the services received by patients in a hospital and their resultant outcomes, whether hospitals which provide more services to their patients achieve better outcomes. Using a composite measure of the intensity of specific medical services reflecting the mix, amount and relative cost of the services provided, the data clearly indicated that

hospitals providing higher than expected levels of specific services also had better outcomes than expected. Hospitals which kept their patients longer than expected had worse outcomes than expected for their patients; length of stay varied from region to region. Some reference to earlier research on this subject is made, all of it American.

695. MARRAM, Gwen D., BARRETT, Margaret W. and BEVIS, Em Olivia. **Primary nursing: a model for individualized care.** 2nd edition. St. Louis, Mo., London, C. V. Mosby, 1979. xiii, 216pp. bibliogs. ISBN 0 8016 3125 4 £5.50

This is a textbook on primary nursing which is intended for a wide audience ranging from students and clinicians giving direct nursing care to training staff and administrators. The first part of the book deals with the factors affecting the nursing care system, including the bureaucracy of hospital administration and the social context of nursing. Part two covers the nature and scope of primary nursing describing a model unit and the problems of changing to a primary nursing system. The final part evaluates the effects of primary nursing on both staff and patients.

TERMINAL CARE

See also Abstract No. 652

696. BOND, J. and BOND, S. **A taboo of our times.** *Nursing Mirror*, Sutton, 1980, March 13, vol. 150, no. 11, pp. 23-26.

Despite the increasing attention given to dying as a social event and the management of dying, death is still a 'taboo' topic. This paper discusses the sociology of death and dying. The definition of 'dying' tends to be influenced by the particular setting in which the patient is being cared for and the age of the patient in relation to his prognosis. Awareness of dying is not an issue for many patients in acute care facilities, but becomes a problem for those who have lingering terminal phases and who are alert. Four awareness categories are identified; they represent a movement from living to death. Factors influencing the passage of a patient through the categories are discussed. Interaction between individuals takes place in four awareness contexts: closed, suspicion, mutual pretence, and open. The nurse must maintain professional composure in her interactions with the dying. The problems this causes and the means of overcoming them are examined.

697. CHAPMAN, J. A. and GOODALL, J. **Helping a child to live whilst dying.** *Lancet*, London, 1980, April 5, pp. 753-756.

When a child is terminally ill, the physical symptoms and the emotional and spiritual needs of the child, the family and the caring staff all require attention. To illustrate this, the case history of a child whose illness lasted three years from the age of nine to 12 is described. The illness fell into three stages: (i) active treatment of the presenting disease, lasting 33 months; (ii) palliative treatment and symptom control for three months; and (iii) terminal illness, lasting six weeks. Each stage is discussed under the following headings: (i) physical problems, including the later stages of severe pain and drug side effects; (ii) emotional and spiritual problems; and (iii) family problems.

The aim of this presentation is to encourage a continuing reappraisal of care during any long illness, including the provision of adequate symptom control during the stage when family should work together to give support to the child.

698. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. WORKING GROUP ON TERMINAL CARE. **Report.** (Chairman: Professor E. Wilkes). London, DHSS, [1980]. [ii], 22pp. bibliog.

The needs of the family are emphasized in the recommendations in this report—they should receive advice and support and hospitals should have facilities for relatives such as simple meals, a room to talk and overnight accommodation. Rather than a large increase in hospices an integrated system is called for with hospitals, hospices and primary care. Terminal care units should have the capacity to educate and inform, there would be advantages in linking units to nursing and medical schools. Regarding voluntary help it is recommended that Regional Health Authorities should consult with voluntary bodies and these bodies should consider the supply of specialist nurses to provide community support, night nursing, day care facilities and resources for staff training. Lastly, the report suggests that nurse and undergraduate medical training should include the psychological aspects of dying and bereavement and an introduction to counselling.

699. STOLLER, E. P. **Effect of experience on nurses' responses to dying and death in the hospital setting.** *Nursing Research*, New York, 1980, Jan./Feb., vol. 29, no. 1, pp. 35-38.

In order to examine the influence of experience on nurses' responses to death and dying among patients, 62 responses to a questionnaire distributed in a New York hospital were analyzed. Fourty-four respondents were registered nurses and 18 were licensed practical nurses. The results showed that the latter group, with experience, had developed ways of alleviating uneasiness when nursing dying patients. This was not so among registered nurses, the majority of whom had developed a negative reaction to death. This difference might be due to: (i) the registered nurses' greater opportunity for detachment from the patient; and (ii) the licensed practical nurses' greater degree of contact with patients. The experience variable was not significant in predicting the responses of either group to caring for the elderly dying patient as compared with a younger patient. Further research is needed to examine whether these findings apply to other hospitals and hospital units.

HOME CARE, AFTER-CARE

See also Abstract Nos. 730, 748

700. LINDENBERG, Ruth Ellen and COULTON, Claudia. **Planning for posthospital care: a follow-up study.** *Health and Social Work*, Albany, N.Y., 1980, Feb. 1, vol. 5, no. 1, pp. 45-50.

This study describes the post-hospital needs of patients and the extent to which these needs are met subsequent to discharge. The sample consisted of patients seen by social workers in nine hospitals and in many cases it can be shown that family or

friends provided the post-hospital services, often unsatisfactorily. Community agencies were shown to have been little used and the article examines whether the need for such services should be met by hospitals or community agencies. The general finding of the study is that a substantial number of patients discharged from hospital do not have their needs met. This suggests that social workers, whether based in a hospital or community must exercise greater responsibility in assuring post-hospital plans are carried out and patients' needs met.

SPECIAL DEPARTMENTS

WARDS

See Abstract Nos. 647, 730

OPERATING SUITES

See also Abstract Nos. 618, 672, 680

701. QUAYLE, Sylvia. **Care and safety of the patient in the operating department.** *NATNews*, Matlock, 1980, March, vol. 17, no. 3, pp. 14-16.

This essay describes the measures required to ensure the safety of patients and staff in the operating department. It is important that the patient is at ease in the anaesthetic room and during a general anaesthetic every care must be taken to ensure that correct theatre procedures are maintained. General measures to prevent errors and accidents have been drawn up by the Medical Defence Union and the Royal College of Nursing. The patient must be cared for while being transported from the ward to the operating department and transport equipment must be maintained. In the anaesthetic room, the patient's details must be checked with the operating list. Equipment in the operating department must be checked frequently and scavenging systems used to prevent risk to staff and patients from anaesthetic gases. All theatre staff should wear the correct protective clothing and adequate changing areas and a rest room should be provided. An efficient ventilation system is vital and monitoring of the levels of anaesthetic gases in the air should be made compulsory. The author lists examples of Health and Safety Courses to which staff should be seconded. There are also theatre courses for nurses and refresher courses for trained theatre staff.

702. MILLONIG, H. Kompetenzabgrenzung in Anästhesie und Intensivmedizin. **[Demarcation of duties in anaesthesia and intensive medicine.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1980, March, vol. 21, no. 3, pp. 140-142, 144.

There has been some confusion in Australian legislation as to how far certain procedures in anaesthesia and intensive medicine can be delegated by medical staff to non-medical staff, including nurses. Examples are given of procedures which can be carried out by non-medical staff under the supervision of a doctor provided that the latter is satisfied that the nurse (or other staff member) has had adequate training and is sufficiently competent to carry out the task. What is needed for the future is legislation which makes it essential for non-medical staff to have had proper training in anaesthesia

and intensive medical procedures, for their work to be carried out under the continuous supervision of an appropriate medical specialist, and for the doctor to retain responsibility under civil and criminal law.

703. **Dangerous mistakes in drug administration.** *NATNews*, Matlock, 1980, Feb., vol. 17, no. 2, pp. 8, 10.

Anaesthetists administer a wider variety of drugs than any other group of hospital doctors. Many hospital staff handle drugs in transit from the dispensary to the anaesthetist and the following practices may lead to errors: (i) ready labelled packages from the operating suite may be filled with the wrong drug; (ii) changes in proprietary names owing to a change of manufacturer; (iii) unsupervised drawing up of syringes or 'topping-up' of vapourizers by non-medical staff; and (iv) failure to read labels on similar-looking ampoules on the anaesthetic trolley. Anaesthetists must accept the fact that every drug has at least two names and there are not enough suitable colours to make colour coding of groups of drugs practicable. The working party of the Medico-Pharmaceutical Forum of the Royal Society of Medicine recommended: (i) improvements in ampoule labelling, including the giving of both proprietary and approved names and the standardization of descriptions of total dose and volume; and (ii) the publishing of an updated record of drug synonyms.

704. HEATH, M. L. **Consultant work load and manpower planning in anaesthetics.** *British Medical Journal*, London, 1980, March 8, vol. 280, pp. 737, 738, 740.

The Regional Anaesthetic Subcommittee of the South-East Thames Regional Health Authority (SETRHA) used a questionnaire sent to district representatives in May 1978 as a basis for calculating the required anaesthetic consultant provision for each district. Each district supplied information under the following headings: (i) routine work load of all grades of anaesthetic staff; (ii) time spent on non-clinical duties; (iii) emergency call arrangements; and (iv) work load with regard to pre-operative and post-operative care. Results were calculated for individual districts. Work load was greatest in districts with special units and in teaching districts. SETRHA as a whole has more than the national average of consultant anaesthetic provision, but, unless the work load alters, the total shortfall will rise from 348 to 458 sessions if provision is adjusted according to the 'Regional Consultant Manpower Planning Guidelines', published in January 1978. The method of calculating anaesthetic provision is clearly unacceptable, owing to the following factors: (i) districts with regional specialties are discriminated against; (ii) specialized work is often done by junior staff; and (iii) the level of service in intensive care and obstetrics is uneven.

PHARMACY

See also Abstract Nos. 668, 727

705. GROGAN, F. J. **The hospital pharmacist and nursing pharmacology.** *Drug Intelligence and Clinical Pharmacy*, Cincinnati, Ohio, 1979, Nov., vol. 13, no. 11, pp. 664-668.

This paper aims to provide some guidelines to pharmacists planning a course in pharmacology for student nurses. The students should be given a course outline which

includes the objectives of the course and a means of assessing their understanding of each topic dealt with. The primary teaching method should be a number of lectures which provide not only a list of drugs and their actions, but which relate their use to actual case studies. The instructor must also select a textbook to suit the course and audiovisual aids, especially the overhead projector, can be a great help in presenting information. The whole course, including the final test, should be geared towards the practice setting and test questions should be based on clinical situations and problems. The frequency and format of testing should be determined before the course begins and after each test students should have the opportunity to discuss their answers with the instructor. Student evaluation at the end of the course is an effective way of assessing its value.

706. BRIGGS, P. J. and others. **Relationships between patient data and pharmacy workload and staffing.** *Pharmaceutical Journal*, London, 1980, March 8, vol. 224, pp. 282-285.

Information was collected from 88 pharmacies throughout the country covering almost every type of hospital. The data, for a four-week sample period, consisted of: (i) total number of patients, split into community patients, out-patients, medical, surgical and long-stay patients; (ii) number of items dispensed; (iii) time spent by pharmacists within the pharmacy; (iv) time spent outside the pharmacy; (v) time spent by technicians and pharmacy assistants inside and outside the pharmacy; (vi) establishment of pharmacists; and (vii) establishment of technicians and pharmacy assistants. The general picture which emerged was that 79 per cent of the total pharmacist and preregistration pharmacist time was devoted to patient services and the remaining 21 per cent was spent in support services; the figures for other staff were 68 and 32 per cent respectively. The relationships between the number of patients, the number of items dispensed and staff were investigated. Two models were then formulated for use in predicting pharmacy staffing figures directly from patient data, one for a single level of service, the other taking into account different levels of service outside the pharmacy. The models and their application are detailed in appendices.

707. HOOD, J. C. and MILLER, J. R. **Use of computer drug-drug interaction program for detection of adverse drug reactions and related therapeutic problems.** *Drug Intelligence and Clinical Pharmacy*, Cincinnati, Ohio, 1979, Dec., vol. 13, no. 12, pp. 774-777.

A computer program to detect adverse drug reactions has been developed at Bayfront Medical Center, St. Petersburg, Florida. Drugs, or classes of drugs, which have particular contra-indications or secondary effects are cross-referenced with the drugs generally prescribed to treat a particular disease. Likewise, drugs often used to treat the results of an adverse drug reaction are cross-referenced with the causative agent. In addition, drugs are cross-referenced with disease states, enabling possible adverse reactions between drugs and certain diseases to be detected directly. The judgement of the pharmacist is required for every interaction detected by the program. Follow-up consists of informing the medical staff of the relative importance of the interaction detected. Use of such a program is helpful in selecting patients for adverse reaction studies and detecting contra-indications on certain diseases, especially in hospitals where the pharmacist's time in patient care areas is limited.

LABORATORIES

See also Abstract No. 712

708. **Safety measures in microbiology: minimum standards of laboratory safety.** *WHO Chronicle*, Geneva, 1980, April, vol. 34, no. 4, pp. 144-146.

The hazards of research on pathogenic micro-organisms and several recent tragic laboratory accidents have caused much public concern. This article describes the World Health Organization's special programme on safety measures in microbiology. The programme has established a classification of micro-organisms by risk, developed international standards on laboratory safety and emergency action in laboratory and transport associated accidents. Guidelines and training programmes to supplement these are now being developed.

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract No. 646

709. SQUIRES, N. **Imaging from all points of view.** *Health Care*, Don Mills, Ont., 1980, Jan., vol. 22, no. 1, pp. 18-20, 24.

Methods of reducing costs in X-ray technology include: (i) buying products that can be upgraded to meet technological advances; (ii) greater selection of film sizes; (iii) the use of a quality control programme in the radiology department; and (iv) the use of some means of silver recovery from used film. A quality assurance scheme for radiology departments is being developed by the government of Alberta, starting with the standardization of processing techniques. An advisory committee on radiology has been set up in Ontario to establish quality assurance schemes for patient exposure, standards of equipment and qualifications of operators. The Ontario Society of Radiological Technologists is concerned about: (i) the lack of a licensing act for X-ray technologists; (ii) frequent lack of further education for technologists; and (iii) the ignorance of the public about radiography. The International Society of Radiographers and Radiological Technicians, through its links with the World Health Organization, aims to improve the educational standards of radiological technicians internationally. More knowledge is needed about new and existing devices to ensure that this aspect of Canada's health care service is cost-effective.

710. WETTSTEIN, P. Idées de base et réalisation d'un service central de radiologie. **[A central radiological service: basic ideas and practical problems.]** *Hôpital à Paris*, Paris, 1979, Nov./Dec., pp. 491-496.

Geneva University Hospital's new radiology department has two units of six rooms each for routine examinations, a four-room unit for out-patients, a three-room unit for angiocardiography and angiography, and a three-room unit for thermography, ultrasound, and tomography. In addition there is a two-room unit in the emergency department and a four-room unit in the neuro-radiology department; the latter has a brain scanner. The examination rooms are grouped around the developing rooms, where a daylight development system is employed; each development room has two machines. As the negatives are developed they are attached to a super-alternator; they

can be checked and interpreted on the spot and the radiologist can dictate his summary into one of the dictaphones provided. There is also a video unit, and three demonstration rooms, each of which has seating for 30. Three plans of the new department are included in this description, which is followed by a short critique which draws attention to the high level of provision—one X-ray room to every 57 beds—and the value of the demonstration rooms. The author feels, however, that the video unit is not essential and he dislikes the idea of grouping the X-ray rooms around the development rooms.

711. WHITE, J. **Automated documentation in a radiodiagnostic department.** *Radiography*, London, 1980, March, vol. 46, pp. 49-64.

This paper presents a practical approach to the choice, implementation and thereafter maintenance of an automated system for the storage and retrieval of radiodiagnostic records. The general office is the activity centre of the department. A review is made of its clerical procedures, the space available, deficiencies in film identification and the desirability of implementing quality control. Office organization is then examined with particular reference to computerization, microfilming and filing systems. The advantages of miniaturization are discussed and information is given on the various systems available. Full details are given of a system of miniaturization using 100 mm. film. Implementation of such a system should not proceed without the support of and acceptance in principle by the medical staff and involvement of the department's staff. Maintenance of quality is a priority and advice on maintaining standards is given.

712. DOVE, H. G., GIFFORD, R. and SCHNEIDER, K. C. **The trips of slips: time delays in laboratory and X-ray data for out-patients in a teaching hospital.** *Journal of the American Medical Association*, Chicago, Ill., 1980, Feb. 8, vol. 243, no. 6, pp. 537-539.

The laboratory and X-ray studies performed on 148 out-patients from two clinics at the West Haven Veterans Administration Medical Center, Conn., were monitored to see how long it took for the results to be obtained, reviewed and inserted into the medical record. It took an average of 27 days for the report slips to complete all three stages, the main delay occurring between arrival at the clinic for review and removal to the medical records library. Of the 242 slips monitored, 94 by-passed one or more of the collection sites and some of these were lost altogether. This problem clearly deserves more attention, especially in the out-patient clinics of large teaching hospitals.

REHABILITATION

See also Abstract Nos. 691, 726, 748

713. GADOMSKI, M. and RAICHURA, B. Rehabilitation in der Geriatrie. **[Rehabilitation in geriatric care.]** *Rehabilitation*, Stuttgart, 1980, Feb., vol. 19, no. 1, pp. 20-23.

Of the population of Munich in 1976 15.3 per cent were over 65; 4.6 per cent of those over 65 were in homes for the elderly and 0.7 per cent in hospitals or nursing homes. On a randomly selected day in 1976 45 per cent of in-patients in specialist medical departments of Munich hospitals were over 65 (30 per cent were over 70).

They were getting expert care but, because of lack of accommodation and staff, practically no rehabilitation treatment: as a result expensive acute beds were being occupied uneconomically. An important step towards increasing rehabilitation of the elderly was taken with 1974 legislation and it is shown how this could help rehabilitation of the elderly. It should be possible to provide rehabilitation facilities in acute hospitals. It was agreed in November 1976 to set up a gerontology centre with the primary functions of geriatrics and rehabilitation. The care of geriatric patients and their rehabilitation is carried out at four levels: (i) general practice, social work, home helps, meals on wheels, etc.; (ii) day hospitals and short-term care; (iii) homes for the elderly; and (iv) geriatric in-patient care.

714. NICHOLS, P. J. R., editor. **Rehabilitation medicine: the management of physical disabilities.** 2nd edition. London, Butterworths, 1980. xii, 353pp. bibliogs. ISBN 0 407 00175 1 £19.50

The role of the physiotherapist and occupational therapist is an adjunct to normal medical diagnosis and treatment. Particular diseases and disorders are described in this work, as well as the most beneficial regimen, whether this be active therapy, the use of aids and appliances or the adaptation of the disabled person's environment. Other chapters include aids to mobility, sexual problems of the disabled, psychological aspects of disability and research into rehabilitation. A bibliography and list of references is provided at the end of each chapter.

PHYSIOTHERAPY DEPARTMENT

715. GOBLE, R. E. A. and others. **Out-patient physiotherapy: patterns of provision.** *Rheumatology and Rehabilitation*, London, 1979, Nov., vol. 18, no. 4, pp. 248-256.

A total of 1,014 physiotherapy out-patients and their therapists were interviewed at six hospitals in the Oxfordshire Area Health Authority and four in the Exeter Health Care District. These were selected to represent the district general hospital, the geriatric day hospital and their associated community hospitals in each of the two regions. Over 70 per cent of the patients had long term disabilities. The proportion of this type of patient, varied between the hospital types, but the variation was similar in the two regions. The commonest treatment session consisted of either exercises and heat or exercise alone and encompassed 40 per cent of the total number of patients. Seven per cent received heat treatment only. The overall frequencies of treatment were similar in all departments regardless of region or type of hospital. The standard frequency of attendance was two or three times weekly. About a third of the patients used hospital transport and most attended a hospital reasonably close to their homes. Detailed results of the study are set out in five tables.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 747

716. MARSHALL, T. **Information needs in planning spinal cord injury services.** *Community Medicine*, Bristol, 1979, Nov., vol. 1, no. 4, pp. 282-285.

Hospital services for patients with spinal cord injury in England and Wales are

provided through seven spinal injury units and two more are currently being established. The author considers that the assumption that existing facilities are inadequate is based on insufficient data. Any assessment of acute and rehabilitation needs must begin with a review of both incidence and prevalence. Information on the prevalence of spinal injuries in different regions is also required. Spinal injury units are a source of information but not all spinal injuries are treated in the spinal units. The figures in the report of the Review Committee on Paraplegic Services of 1967 are out of date and other sources, such as the number of National Health Service wheelchairs issued, are not specific enough. Planning of services cannot be carried out without information on likely demand; demand and changes arising from incidence trends can only be ascertained from a continuing information system. The following suggestions are made: (i) returns from spinal injury units should be sent to a national centre and used as a check on the accuracy of the Hospital Activity Analysis; and (ii) all Artificial Limb and Appliance Centres should register new prescriptions to spinal cord injury patients with the national centre.

INTENSIVE CARE UNITS

See also Abstract Nos. 614, 685

717. ADLER, Diane C. and SHOEMAKER, Norma J., editors. **AACN organization and management of critical-care facilities.** St. Louis, Mo., London, C. V. Mosby, 1979. xx, 214pp. bibliogs. ISBN 0 8016 0130 4 £8.50

This book is concerned with the creation, organization and management of intensive care units. It is divided into five sections covering formation of a unit, design and equipment, policies and procedures, development of nursing personnel, and considerations for patient care. The book includes chapters on standards, administrative aspects, recruitment, training and management of nurses, monitoring the critically ill patient, data collection and critical care problems in developing countries.

SPECIALIZED HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 648, 690, 712, 715

718. VISSERS, J. **Selecting a suitable appointment system in an out-patient setting.** *Medical Care*, Hagerstown, Md., 1979, Dec., vol. 17, no. 12, pp. 1207-1220.

One of the principal causes of waiting time in out-patient departments is the lack of well-designed appointment systems. A conceptual framework is given for dealing with existing appointment systems and to explain their working. The variables that play a role with respect to the system are: mean consultation time; co-efficient of variation of the consultation time; number of appointments made for a clinical session; mean and standard deviation of patient's punctuality; and mean time the clinic starts. Appointment systems can be compared according to their effect on the patients' waiting time and the physician's idle time, when the systems are expressed in terms of

a new variable called 'prepunctuality'. Prepunctuality is the difference between the time of a patient's arrival and the expected time of treatment. It is caused by the patient's own earliness, the physician's lateness and the earliness induced by the appointment system. The relationship between prepunctuality and both waiting and idle time was investigated using a computer simulation model. In this way, the consequences of using different appointment systems have been clarified and expressed in mean waiting time for the patient and total idle time for the physician. Given certain standards for waiting and idle time, the calculated results can be used to select an appropriate appointment system and the corresponding waiting and idle time for the range of most common clinic situations. Examples are given to illustrate how these results can be used.

CASUALTY AND ACCIDENT

See also Abstract Nos. 731, 732, 749

719. WAKEFORD, R. and YATES, D. **Accident and emergency teaching in UK medical schools.** *Medical Teacher*, London, 1980, March/April, vol. 2, no. 2, pp. 93-96.

This paper reports an investigation into the experience provided for medical students in accident and emergency departments in teaching hospitals in the United Kingdom. The report is in two parts: (i) the subject's overall place in the curriculum, based on information provided by a member of each medical school's central administration; and (ii) the practical implementation of teaching, based on information from the head of each accident and emergency department in a teaching hospital. The survey demonstrated considerable differences in the arrangements made in the various medical schools, and also in the place of the subject within the final examination. Further deliberations are necessary on the role of accident and emergency departments in undergraduate teaching.

720. SILVERSTON, P. P. **A decade on the road.** *Nursing Mirror*, Haywards Heath, 1980, March 20, vol. 150, no. 12, pp. 16-18.

The concept of mobile intensive care is new even in America, but over the last decade its effect on emergency medical care has been far-reaching. A handful of pioneering emergency room physicians in several American cities started the movement after seeing the results achieved by their counterparts in the Vietnam war. Central government finance helped to establish the mobile intensive care (MIC) team approach, the team consisting of a physician, a nurse and a paramedic. Most paramedics fall into the third of the five categories of emergency medical technicians and it is here that the MIC nurse becomes involved. The prerequisites for MIC nursing training are listed and details are given of the training courses. The functions of the MIC nurses make them a vital intermediary between the prehospital setting and emergency room. The author spent one year working in San Francisco's emergency medical service system and briefly discusses his experience there.

721. MONROE, C. B. **A simulation model for planning emergency response systems.** *Social Science and Medicine*, Oxford, 1980, March, vol. 14D, no. 1, pp. 71-77.

A simulation model of an emergency response system is presented to illustrate the

usefulness of this approach for evaluating the locational aspects of an emergency medical service. Based on data from the early 1970's which include the spatial and temporal distribution of emergency calls, the model is designed to replicate the sequence of events in an emergency response system. It is tested for validity against a sample of emergency calls from the public emergency ambulance service in Madison, Wis., and several applications of the model are discussed to show its effectiveness in this area of regional health planning. In one example, the simulation results indicate that re-location of two emergency units in Madison would offer substantial savings in response time, service time, and distance travelled by the system's vehicles. The range of applications and the ability to modify and extend the model, make simulation a powerful tool for planning effective health care systems.

INFECTIOUS DISEASES AND ISOLATION

722. TEDDER, R. S. **Hepatitis B in hospitals.** *British Journal of Hospital Medicine*, London, 1980, March, vol. 23, no. 3, pp. 266, 275, 276, 278, 279.

Some procedures used in hospital medical treatment have caused the unusually efficient spread of infectious agents among staff and patients. Hepatitis B virus (HBV) is known to cause hospital outbreaks and it does so because of the very large amount of infectious virus that may be present in the blood of some patients. On occasions these outbreaks have had high rates of infection and mortality. This paper sets out guidelines to help medical staff in preventing outbreaks of hepatitis B. It covers: epidemiology; markers for HBV infections; the hepatitis B carrier states; policy of screening for HBsAg; management of the acute infection; management of the carrier; theatre management; obstetrics and the HBsAg-positive patient; venepuncture and pathological specimens; the use of a side ward; and counselling HBsAg-positive patients and health care staff.

CHILDREN

See also Abstract Nos. 687, 697

723. OSWIN, Maureen. **The neglect of children in long-stay hospitals.** *Child Abuse and Neglect*, Oxford, 1979, vol. 3, no. 1, pp. 89-92.

More than 6,000 handicapped children in England and Wales are living permanently in National Health Service hospitals. The author believes that this situation deprives children of ordinary childhood experiences, leads to physical neglect in some long-stay hospitals, and also to emotional deprivation. The United Kingdom tradition of isolating the elderly, handicapped and sick from society is criticized and a few suggestions made to improve the situation in hospitals—such as allowing children to visit the kitchens, providing paediatric occupational therapists and reducing changes of staff.

724. TAPPARO, D. and DEL GUIDICE, C. Permanenza dei genitori nell'ambiente ospedaliero pediatrico. **[Parents in the paediatric hospital.]** *Ospedale*, Torino, 1980, Feb., no. 2, pp. 53-72.

A detailed analysis of the activity of the Regina Margherita Children's Hospital and the University Institutes of Paediatrics in Turin during the last nine years is documented

in nine tables and one graph. There has been a decline in the number of in-patients, due to the increase in the number of beds in peripheral hospitals, greater use of the day hospital, and a declining birth rate. A patient now spends six days in hospital on average in comparison with 12 days nine years ago. However, a serious problem is now being posed by the presence of parents and too many visitors at the sick child's bedside. A study of the microclimate and ecological situation in patients' rooms, entrances, and corridors showed a reduction in air speed and an undesirable increase in air temperature in rooms where the child's mother was present at all times and other visitors were present during the day. From the point of view of bacterial contamination, however, the situation was fairly satisfactory. The results of this study are given in three tables and three graphs. The authors recommend that a publicity campaign be mounted to discourage so many visitors, that more extensive use be made of day hospital facilities, that separate entrances be provided for visitors, and that more space be allocated to the children's mothers.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 639, 667, 713, 723, 733, 746

725. ENGQUIST, C. L. and others. **Can quality of life be evaluated?** *Hospitals*, Chicago, Ill., 1979, Nov. 16, vol. 53, no. 22, pp. 97, 99, 100.

A multidisciplinary committee of the United States Veterans Administration (VA) sought to evaluate the quality of life experienced by patients in their various long term care programmes. Quality of life is defined as the extent to which an individual is able to achieve security and use his capabilities to the utmost. A number of VA facilities were considered for the establishment of guidelines relating to the quality of life including: (i) nursing home care units; (ii) contract nursing home care; and (iii) hospital-based home care. For each scheme, specific policies and settings were developed to reflect several areas of environmental needs, including: (i) provision of personal space; (ii) a stable environment which encourages but does not force; (iii) compensation for failing physical faculties; (iv) activities which recognize individual interests; and (v) participation in the running of the nursing home unit. Staff at VA facilities were familiar with the quality of life concept, but few formal programmes existed to assess the impact of VA schemes on the patients' quality of life, which varied according to the number of staff and other available resources. The committee's efforts represent a move towards developing a valid scale for measuring quality of life in various VA programmes.

726. BALDONI, E. Ospedale per lungodegenti od ospedale di rianilitazione? **[Hospital for long-stay patients or rehabilitation hospitals?]** *Tecnica Ospedaliera*, Milano, 1980, March, no. 3, pp. 20-28.

A long and carefully argued exposition of the whole problem of the long-stay patient is followed by a recommendation that the long-stay hospital should be renamed the rehabilitation hospital and should provide physical, psychological, and social rehabilitation for as many patients as would benefit, in particularly the elderly. The author goes on to describe the facilities which this hospital should have, namely: in-patient units for diagnosis, treatment, and rehabilitation; a day hospital section; a rehabilitation therapy area (gymnasium, swimming pool, open spaces); a half-way

house; a diagnostic unit; occupation, work and games therapy units; social areas (bar, restaurant, hairdresser's); staff training unit; and a technical laboratory, where tools, appliances, and aids for the patients can be made. He makes specific suggestions as to the type of illumination, flooring, baths, and open spaces to be provided, and presents a plan for a rehabilitation hospital. The 14 photographs which accompany the article illustrate various facets of rehabilitation.

727. TROMMEL, J. and GIPS, C. H. Systematisch uitoefenen van de geneeskunde in een psychogeriatrisch verpleeghuis en de kosten van geneesmiddelenverbruik. **[Medical care systematically applied in a psychogeriatric nursing home and its influence on the use and cost of medicaments.]** *Acta Hospitalia*, Leuven, 1980, vol. 20, no. 1, pp. 48-65.

In the 174-bed 'Talma House' psycho-geriatric nursing home, Veenwounden (Netherlands), a systematic method of diagnosis and treatment was started in 1969. The programme included a yearly medical examination of the patient, automatic discontinuation of drugs after certain periods followed by a complete reassessment of the patient's condition, and a new administrative system providing the prescribing physician with a separate card for the patient's medication in addition to the customary details. In 1978 the accounts for medicaments ordered during the years 1966 to 1977 inclusive were examined according to type of drug, amount and costs. The nine tables give: price indices showing the effect of inflation; costs of medicaments per year; nursing costs per patient-day; costs of type and changes in type of medication; number of diagnoses; and comparisons with average drug use in other Dutch psycho-geriatric institutions with a minimum of 170 beds. It was found that by 1977 the national average of costs of medicaments per patient-day was approximately 2.5 times higher elsewhere than in Talma House.

CANCER

728. ALLEN, David. **Cost benefit of cancer treatments.** Manchester, University of Manchester, Department of Social Administration, Health Services Management Unit, 1980. [i], 12pp. (Working Paper No. 21) £2.00

This study revealed a major gap between patient's and relative's psychological and social needs and the care given, except for mastectomy patients who received counselling. The finding suggests that needs could be met most effectively by new developments, such as specialist nurses and by redeployment of resources. The report is mainly concerned with the problems of women with breast cancer, their psychological problems and the unpleasant effects of treatments such as radiotherapy, cytotoxic chemotherapy and surgery. After 18 months 35 per cent of a control group were suffering anxiety or depression but only eight per cent of a group given counselling. Costings are given for the extra expenditure needed to provide counselling; the decision whether the benefit justifies the cost remains a political one.

NEUROLOGY AND NEUROSURGERY

729. ARBIN, M. and others. **Validation of admission criteria to a stroke unit.** *Journal of Chronic Diseases*, Oxford, 1980, vol. 33, no. 4, pp. 215-220.

In a study at Serafimerlasarettet, Stockholm, the following criteria were chosen for

the identification of stroke cases: (i) patients with one or more episodes of focal neurological deficit with a duration of less than 24 hours within the last month; and (ii) progressive and manifest stroke. A special form was completed for each patient fulfilling these criteria for a preliminary diagnosis of cerebrovascular disease; these forms were compared with final diagnosis after hospital investigations. Of 2,252 patients admitted to the medical department through the emergency ward during a seven-month period, 169 patients were initially suspected of having a cerebrovascular disorder. This was later confirmed in all but 17 of them. Another 24 patients, not correctly classified initially, had also suffered a stroke. In practice therefore, sensitivity of the criteria was 86 per cent and specificity 99 per cent. Had the criteria been more strictly adhered to in the emergency ward, sensitivity could have been increased to 97 per cent and specificity to 100 per cent. Thus, simple criteria of this kind seem appropriate for standardized identification of stroke in the acute situation.

CARDIOLOGY

730. BERNARD, R. **Acute myocardial infarction: coronary care unit, hospital ward or home management?** *Acta Cardiologica*, Brussels, 1979, vol. 34, no. 4, pp. 269-278.

The coronary care unit (CCU) plays a prominent role in the fight against primary ventricular fibrillation, and also in the treatment of other arrhythmias and clinical conditions that may lead to extension of the necrosis, failure and shock. However some British authors have questioned the need for admitting all patients with acute myocardial infarction to a CCU. This critical review of their papers stresses the important methodological problems they could not overcome; they cannot therefore provide a valuable comparison. There is no randomized trial comparing general ward and CCU care, but data available from studies based on bed availability show a definite advantage for the CCU. At the present stage of our knowledge, admission to a CCU must be recommended for all patients seen in the first hours after the presumed onset of the disease. After some delay (12 hours?) automatic admission is no longer justified and the decision should be taken in relation to the clinical status and familial or social conditions of each case.

731. TWEED, W. A. and others. **Evaluation of hospital-based cardiac resuscitation, 1973-77.** *Canadian Medical Association Journal*, Ottawa, Ont., 1980, Feb. 9, vol. 122, no. 3, pp. 301-304.

During the years 1973 to 1977, resuscitation was attempted at the Health Sciences Centre, Winnipeg, in 2,091 instances of cardiac arrest occurring either in or outside of hospital: 261 patients (12.5 per cent) survived to be discharged from hospital. Although the cause had some effect, the main factor influencing outcome was the site of arrest. The survival rate of patients on whom resuscitation was initiated in the emergency room or an intensive care area was triple and double the rate for patients in hospital wards, although one-third of all the cardiac arrests induced by a coronary event and occurring in hospital were on the wards. Patients whose cardiac arrest occurred outside hospital, where only basic life support was available, had a survival rate of just 6.3 per cent, whereas those whose arrest occurred in the emergency room had a survival rate of 31.9 per cent. Since these two patient groups were similar in terms of age and diagnosis, it is believed that the potential survival rate for victims of

cardiac arrest outside of hospital that are optimally treated is close to 30 per cent. These data suggest that increased survival can be expected with extension of resuscitation services both inside and outside hospital, but particularly with increased emphasis on emergency cardiac care outside of hospital.

732. EISENBERG, Mickey S. and others. **Management of out-of-hospital cardiac arrest: failure of basic emergency medical technician services.** *Journal of the American Medical Association*, Chicago, Ill., 1980, March 14, vol. 243, no. 10, pp. 1049-1051.

Survival of cardiac arrest victims treated by emergency medical technicians (EMT) with basic life support was studied in four communities. During a two-year period six per cent of patients were resuscitated and ultimately discharged from hospital. This figure is compared with 22 per cent of patients in adjacent suburban communities with paramedical services. The factor accounting for the difference in survival rates was the time from collapse to receiving advanced cardiac care—26 minutes in the EMT area compared to 7.8 minutes in the paramedic area.

ORTHOPAEDICS

See also Abstract No. 671

733. GOLDSTONE, L. A. and ROBERTS, B. V. **A preliminary discriminant function analysis of elderly orthopaedic patients who will or will not contract a pressure sore.** *International Journal of Nursing Studies*, Oxford, 1980, vol. 17, no. 1, pp. 17-23.

Over a three-month period, the 314 patients who were admitted to an orthopaedic ward were assessed using the Norton scoring system to indicate their risk of contracting a pressure sore. The 64 patients who were over 60 years of age were studied in detail; 13 were observed to suffer a pressure sore. The object of the study was to provide an alternative score based on the Norton system but using possibly fewer factors and revised weights. The study showed that a simple alternative using only two factors (activity and mobility) of the five in the Norton system is quite feasible.

SURGERY

734. CROSS, Michael. **Cryosurgery—cutting the cost of care.** *Middle East Health*, Morden, 1980, April, vol. 4, no. 4, pp. 44-46.

Cryosurgery is a relatively new form of treatment that can reduce the cost of surgical treatment. Tissue is suddenly cooled to 40° Centigrade, when it warms again the damaged cells die, and drop away along a sharply-defined line. The method is relatively painless and can be applied externally without the risks of anaesthetic and subsequently reducing stay in hospital. Because treatment is bloodless hospital stay is again reduced whilst there are advantages for haemophiliac and diabetic patients. There is no scarring, so on Caucasion patients the site of the operation is virtually invisible; there is no risk of infection since the treated tissue is aseptic. Heart surgeons at St. Bartholomew's Hospital in London have begun to freeze parts of the heart during open surgery to

correct faulty conduction paths, using a computer to plot the paths. Used with conventional surgery to freeze the nerves in the operating zone cryosurgery produces numbness for up to three weeks, saving money on analgesics and post-operative care. Applications in cancer surgery are being investigated.

735. COLLOPY, B. T. **A surgical outcome audit.** *Medical Journal of Australia*, Glebe, N.S.W., 1979, Dec. 29, pp. 689-691.

Early in 1976, the division of surgery at St. Vincent's Hospital, Melbourne, formed a subcommittee to investigate and report on methods of surgical audit. It recommended the adoption of a system of outcome audits to be conducted by the medical staff at unit level and the formation of an audit committee to receive reports from unit meetings. The system adopted is simply a method of making a 'deaths and complications meeting' into a more formal, regular and better documented one. Following a three-month trial, the system was adopted in December 1976. The guidelines for conduct of the audit are reproduced together with abridged versions of the audit sheets used. Staff acceptance has been good. The considerable benefits from the system include: reduction in complication rates; establishment of management protocols; influence on other departments and disciplines; equipment modifications; and the ability to compare surgical performance. The disadvantage of the system is that it does not include any justification of diagnosis, of admission to hospital or of treatment, but it is still evolving and future changes may allow for some measure of critical analysis to be made.

736. EASTAUGH, S. R. **Cost of elective surgery and utilization of ancillary services in teaching hospitals.** *Health Services Research*, Ann Arbor, Mich., 1979, vol. 14, no. 4, pp. 290-308.

In a study of the use of surgical facilities, the number of elective tests performed pre-operatively and the total cost per case were used as measures. The unity of analysis was a matched pair of patients who underwent the same elective procedure, one a Veterans Administration (VA) patient and the other a municipal or voluntary hospital patient (258 pairs). Federal ownership had the strongest impact on tests and cost per case; on average, costs for the VA patients were 52 per cent more per patient. Foreign medical graduates had a strong positive effect on tests but a negative impact on cost per episode. Surgeons with faculty appointments had a strong negative impact on elective testing, but an upward influence on cost per case. Additional variables such as age, average laboratory turnaround time, and fraction of the medical school's students doing their surgical clerkship at the hospital had a slight upward influence on use. The three policy issues raised in the study involved changing the hospital reimbursement incentives, targeting continuing education programmes to categories of staff that need it most, and redistributing faculty and students.

737. WOODYARD, J. **Measuring success in surgery.** *World Medicine*, London, 1980, March 22, vol. 15, no. 12, pp. 89-91.

The relations between expertise and surgical outcome and, in particular, the social implications of this relationship have been largely ignored until now. Two recent papers are considered. The first made two crucial points: (i) practice makes us, if not perfect, then certainly less imperfect; and (ii) surgery increasingly invites social

attention and investigation. The second paper examined mortality rates for 12 surgical procedures of varying complexity to determine the relationship between a hospital's surgical volume and its surgical mortality. From this paper it can be concluded that because the demand for certain high risk procedures is low, these procedures should, in the interest of lower mortality rates, be performed only in a few units. Conclusions that can be drawn from both papers are: (i) if certain procedures are localized it will be necessary to remove patients, even emergencies, to the appropriate unit; and (ii) in all major procedures lower mortality and probably complication rates come from high volumes and the experience that goes with them.

738. SOUTHAM, J. A. and TALBOT, R. W. **Planned surgical admissions in a district hospital.** *British Medical Journal*, London, 1980, March 15, vol. 280, pp. 808, 809.

A trial to assess the feasibility of planned admissions in a general surgical unit of the 527-bed Epsom District Hospital is reported. At the start of the trial the unit had 22 acute adult beds, a variable number of children's beds, and a possible four or five beds in a preconvalescent hospital seven miles away. After any necessary investigations, patients who required admission for operation were told that they would receive a letter within a week giving them the date when they were to come into hospital. They were asked about any periods which would be inconvenient or particularly convenient. With the admission letter they received a brochure and a form to sign and return to accept the date. All names, with the type of operation, were listed in a special diary in pencil, to be confirmed in ink on acceptance. The activities of the unit in 1974, 1975, 1977 and 1978 are presented, the changeover year 1976 being excluded. Admissions for elective surgery increased by about half in the planned years compared with the unplanned. Waiting times for several types of operation became shorter, but there was no change for urgent cases. The unit has gained considerably from the system. It has also proved to be of enormous benefit to patients, but they have apparently taken it for granted.

MATERNITY

See also Abstract No. 607

739. DEPARTMENT OF HEALTH AND SOCIAL SECURITY, OFFICE OF POPULATION CENSUSES AND SURVEYS and WELSH OFFICE. **Hospital in-patient enquiry: maternity tables, based on a one in ten sample of NHS maternity patients in hospitals in England and Wales, 1973-1976.** London, HMSO, 1980. [iii], 68pp. (Series MB4 No. 8) ISBN 0 11 690723 1 £3.95

This volume contains tables relating to pregnancies in England and Wales for the period 1973 to 1976, together with certain comparisons for earlier years. The total number of births has been falling steadily since a peak of 890,518 in 1964. The policy, however, of reducing domiciliary confinements has resulted in the proportion of all deliveries which take place in hospital rising by about 20 per cent in the last 10 years. Wales and North-West England have consistently high birth rates, whilst Wessex and South-East England are low. The mean duration of post-natal stay has been falling since 1967 and has now stabilized at slightly less than six days, though varying from region to region. In 1976 there were 21,893 beds in maternity units, four-fifths of them in consultant units; a third of units had less than 20 beds and one-sixth less than 10.

This is the first separate publication of maternity statistics from the 'Hospital In-Patient Enquiry' and is intended for use by both administrative and medical staff.

740. RISHWORTH, C. M. **Staffing maternity units.** *Nursing Times*, London, 1980, April 24, vol. 76, no. 17, pp. 731-733.

The work of midwives has increased in response to demand for a reduction in perinatal mortality rates, and the change in the birthrate is not directly related to the workload. The new dimensions to midwifery are: (i) improved antenatal care and health education; (ii) increasing active management of labour; (iii) intensive care for those babies who need it at birth; and (iv) screening tests in order to reduce the incidence of handicap. Methods of calculating staffing levels are described and a number of graphs are given to show the changing workloads.

PSYCHIATRY

See also Abstract Nos. 631, 687

741. Labor del trabajador social dentro del campo psiquiatrico. **[Role of the social worker in the psychiatric field.]** *Labor Hospitalaria*, Barcelona, 1979, Oct./Dec., vol. 11, no. 174, pp. 205-207.

The main activities of social workers in the psychiatric hospital include family orientation programmes where the patient's family are interviewed and their role in the patient's rehabilitation explained to them. The medical team cannot assume total responsibility for the patient's recovery. These interviews generally last an hour, and are held with each family once a week. Patients who fail to attend their appointments are followed up and domiciliary visits are made to assess how the patient is progressing after his return home. Social investigations are carried out on the patient's antecedents, family situation, work situation, environment, and attitudes. Provision of occupational and recreational therapy for out-patients is provided and assistance with the compilation of the hospital's statistics is given. The author of this article stresses the social workers' co-operation with other members of the caring team.

742. LAMBERT, E. Warren. **Planning to close an inpatient program: an algebraic approach.** *Administration in Mental Health*, New York, 1980, vol. 7, no. 3, pp. 223-231.

The transfer of in-patients from a psychiatric hospital is described—the problem being to organize an orderly transfer of patients and staff while maintaining adequate care. Gross staff-patient ratios ignored the mix of patients and whether they required more or less staff to take care of them. Specific ratios were calculated, without a computer, using simultaneous equations; these ratios provided a reference point for the director to make sure the staff and patient transfers were in proportion.

743. FERRERO, R. El desmantelamiento del Hospital Psiquiatrico. **[Dismantling the psychiatric hospital.]** *Labor Hospitalaria*, Barcelona, 1979, April/June, vol. 11, no. 172, pp. 92-96.

The traditional psychiatric hospital is under attack for a combination of socio-political, economic, and medical reasons and some critics want to close psychiatric

hospitals altogether. As a result new patients are being treated in institutions which are ill-prepared for them (general hospitals or improvized mental health centres). The author proposes an intermediate solution, based on his experience in the San Baudilio Hospital in Barcelona, a 1,000-bed hospital built in 1854. It has been divided into sectors for: (i) profoundly subnormal patients: (ii) psychogeriatric patients; and (iii) patients with psychiatric diseases. The latter sector has 300 beds, divided into small clinics and units. The patient's admission and discharge are in line with the requirements of his particular condition and every effort is made to ensure the family's co-operation in his rehabilitation. More staff are being provided and there are good training courses for them. There is, for example, a two-year training course leading to a diploma for technical psychiatric health assistants and a one-year course for auxiliary nurses. There are also clinics attached to but not forming part of the hospital, where initial contact can be made with the patient. A day hospital is to be established.

744. SMITH, John and others. **Evaluation of locally-based hospital units for the mentally handicapped in Wessex: a comparison of the changes in behaviour of clients in five locally-based hospital units and comparable 'control' clients in traditional units.** Winchester, Health Care Evaluation Research Team, 1979. 2 vols. (Research Report No. 144)

Mentally handicapped children and adults, including the most severely handicapped or disruptive, in locally-based hospital units are shown to make more 'progress' than equivalent patients in traditional hospitals. Elements provided by the Wessex locally-based hospital unit which appear more favourable for the acquisition of skills are suggested, such as strong continuing support for progress made. The most severely handicapped children living at home made less progress than similar children who lived in locally-based units, but more than those in traditional hospitals.

745. DELL, S. **The transfer of Special Hospital patients to National Health Service hospitals.** London, Special Hospitals Research Unit, 1980. vii, 44pp. (Special Hospitals Research Report No. 16)

Special Hospitals in Britain are intended for psychiatric patients who require treatment under conditions of special security because of their dangerous, violent or criminal propensities; they are under the direct control of central government. The detection in a Special Hospital of people no longer requiring maximum security is a matter of some concern, as there is a lack of formal arrangements for transfers of patients. Because admissions to National Health Service hospitals is at the discretion of individual consultants and depends heavily on local availability of beds there is no national network for Special Hospital patients to be fitted into. Regional and Area Health Authorities do not have the information upon which to allocate patients nor the power to make consultants accept individual patients.

746. REUTER, James and VONKORFF, Michael. **Chronic patients in mental health centers.** *Administration of Mental Health*, New York, 1980, vol. 7, no. 3, pp. 187-199.

Psychiatric departments are frequently faced with a growing population of chronic patients. This article examines the development of plans to cope with this, using

computer models. The authors show that the average length of stay is an insufficient measure for predicting the size of eventual populations, particularly in newly-opened facilities. Likewise, a switch to community care from hospitals may produce dramatic results at first but plans must be made for the chronic cases that will accumulate over time.

747. HARBRIDGE, Elinor. **Broadmoor: case for the defence.** *Community Care*, Sutton, 1980, April 3, no. 309, pp. 30-33.

A visit to Broadmoor Hospital is described and the views of medical, nursing, administrative and social work staff on some of the controversies surrounding the hospital are presented. Particular attention is given to the role of the social workers in the work of this special hospital.

748. LONSDALE, Susan, FLOWERS, Jolyon and SAUNDERS, Betty. **Long term psychiatric patients: a study in community care.** London, Personal Social Services Council, 1980. v, 44pp. bibliog. £2.50

The Psychiatric unit of the Queen Elizabeth II Hospital in Welwyn Garden City provides for acute cases in an area without direct access to long-stay hospital facilities. Most chronic cases are cared for at home, and supporting community services are good. The friends and relatives, however, were found to have their own lives diminished by caring for patients and many of these caregivers were elderly. The authors of this study found that hospital based provision needed to be supplemented by well planned voluntary, local authority and other statutory resources. The local authority rehabilitation hostels provide only short term care and the age range of carers indicated need for long-term supportive accommodation as people grow older and the caregiver dies or is unable to manage. Isolation, the lack of somewhere to go in the daytime and the problem of finding employment were other areas identified as requiring further exploration and resources. Nevertheless, the additional services required for a community based effort contrasted with the heavy expenditure required for the wide range of rehabilitative services and long-term care provided by large psychiatric hospitals.

749. BASSUK, Ellen L. and GERSON, Samuel. **Into the breach: emergency psychiatry in the general hospital.** *General Hospital Psychiatry*, New York, 1979, April, vol. 1, no. 1, pp. 31-45.

The emergency psychiatric department is in the front line between the hospital and the community. In recent years these departments in the United States have been faced with the problem of managing increasing numbers of psychiatric patients, many of them with chronic illness. This paper is an overview of patterns of use, organization of services and methods for evaluation of their effectiveness. The need for further research and programme development is discussed and an extensive list of references is provided.

750. GOLDSTONE, L. **Unknowns and intangibles.** *Health and Social Service Journal*, Basingstoke, 1980, Feb. 29, vol. 90, pp. 285-288.

Forecasting the resource needs of a psychiatric hospital is hazardous, owing to the number of unknown factors. The simulation technique combines this randomness of

the relevant factors to produce a range of possible alternatives, using either a mathematical theory or a computer routine. The author cites several reports to illustrate the fact that the averaging out of random elements encountered in a variety of simulation methods generates a more flexible planning approach. The principal elements in the basic simulation model are the annual admission statistics, including the number of patients still in hospital at the end of subsequent years and those still in hospital of the original starting population. The year end residues are added to the number of new admissions and to the number of patients who have been in hospital for over three years. This process is repeated to reach a range of possible patient numbers for future years. The simulation approach should help planning teams to: (i) think in terms of a number of possible forecasts; and (ii) estimate needs over a longer period of time.

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PUBLISHERS

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Butterworths, 88 Kingsway, London WC2B 6AB.
Council of Europe, Place Lenôtre, Strasbourg, France.
Coventry Area Health Authority, Spire House, New Union St., Coventry CV1 2PT, England.
Department of Health and Social Security, Alexander Fleming House, Elephant and Castle, London SE1 6BY.
Her Majesty's Stationery Office, (HMSO), P.O. Box 569, London SE1 9NH.
Lexington Books, 125 Spring Lane, Lexington, Mass. 02173, U.S.A.
Mosby, 3207 Washington Blvd., St. Louis, Mo. 63103, U.S.A.
New South Wales Hospital Planning Advisory Centre, 28 Foveaux St., Surrey Hill, N.S.W. 2010, Australia.
Spri, Box 1109, 11181 Stockholm, Sweden.
United States. Public Health Service, Bureau of Manpower, Division of Nursing, 800 North Quincy St., Arlington, Va. 22203, U.S.A.
University of London, Athlone Press, 2 Gower St., London WC1.
University of Manchester, Manchester 13, England.
University of Manchester Institute of Science and Technology, P.O. Box No. 88, Sackville St., Manchester, M60 1QD, England.
Wessex Regional Health Authority, Highcroft, Romsey Road, Winchester, Hants.

Printed in England for Her Majesty's Stationery Office by Holmes & Sons, 10 High Street, Andover, Hants
Dd 698193 6/80 K10 11428

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ISBN 0 11 722667 X
ISSN 0018 5507

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